GUIDELINES FOR MEDICATION ADMINISTRATION: AN INSTRUCTIONAL PROGRAM FOR TRAINING UNLICENSED PERSONNEL TO GIVE MEDICATIONS IN SCHOOLS, CHILD CARE AND CAMP SETTINGS

Introduction

An increasing number of children in school, child care, camp programs and other community settings are receiving medications in these out-of-home settings. School personnel, child care providers, teachers, secretaries, directors or school principals, family child care providers, before and after school and camp personnel are administering medications. The added responsibility of providing medications in these programs creates a potential health risk for the child and a potential liability risk for the caregiver. Ideally, parents should make every attempt to administer medications to their children at home. In reality, there will be times when caregivers or unlicensed personnel will be responsible for administering these medications.

The Colorado Board of Nursing has the responsibility for regulating nursing practice, including delegation of medication administration to unlicensed persons (2-38-103(10) C.R.S.). In Colorado, medications are legally administered by a licensed registered nurse (RN) or by unlicensed personnel to whom the RN consultant or school registered nurse has delegated the task of giving medication. A Licensed Practical Nurse (LPN) may administer medications under the supervision of a physician or a registered nurse. However, an LPN may not delegate medication administration to unlicensed personnel.

"Rules and Regulations Governing Schools in the State of Colorado" passed by the Colorado Board of Health in 1990 and revised in 2005 contain regulations pertaining to medications in schools. (See Appendix) The Colorado Department of Education document entitled *Medication Administration in the School Setting: Guidelines* dated 2003 also has information regarding medication administration in the school setting. The "Procedure Guidelines for Health Care of Students with Special Needs in the School Setting" developed by the Colorado Department of Public Health and Environment contains the "Medication Procedure and Forms" which can be used in schools.

In order to standardize the format for instruction of unlicensed personnel in the procedure of medication administration, a subcommittee of the Colorado State Board of Nursing was formed in 1995 to develop an instructional program to be used in schools as well as "out-of-home" settings. The original instructional manual addressed the issues associated with administering medications to older children in school settings. Subsequently, an instructional program was adapted in 1997 to articulate knowledge and skills needed to administer medications to infants and toddlers and to administer medications in various child care programs.

This Medication Administration Instructional Program manual is designed to meet the needs of the individual who administers medications to infants, toddlers, preschool and school aged children in <u>all</u> types of school and community settings. This curriculum is a revision of the 2001, Fourth Edition. Please reference the Significant Changes Document at the beginning of the instructor manual for a quick overview of the changes made in this revision.

All instructors need to be aware that there are now a Severe Allergy Module and an Asthma/Inhaled Medications Module. These two modules need to be part of EVERY medication administration training, but may also be used as separate training modules. Instructors should provide copies of the student manuals for these two modules in addition to the student manual

for the other material in the training. Forms and reference materials for these two modules are also separated out so please review all information in the modules as you determine student handouts for your training.

Since 1995, unlicensed school personnel in public schools involved in medication administration have been required to complete a standard Medication Administration Training. School nurses have been training, delegating and supervising unlicensed school personnel in the administration of medications and other special procedures since this requirement went into effect.

In 2000-2001, the Colorado Department of Human Services, Division of Child Care implemented a similar requirement to the "Rules Regulating Family Child Care Homes, Child Care Centers, School-Age Child Care Centers and Camps" that states: all family child care providers, and child care staff (including licensed before and after school program staff and camp personnel) designated to give medications are required to complete the 4 hour Division of Child Care approved medication administration training. In addition, the Division of Child Care has collaborated with Qualistar Early Learning to establish and maintain a database for current and approved RN instructors as well as a database of participants who have completed this training. This training is renewed every three years.

As more children with special health care needs enroll in community settings, the trend and the legal requirement is for the RN consultant to be responsible for the training, delegation and supervision of medications and health procedures.

This manual and curriculum is designed to give unlicensed personnel basic information on the steps involved in the administration of medication. **Training alone does not constitute delegation.** After completing this training, unlicensed personnel must demonstrate competency in their ability to administer medication to the RN delegating the task of medication administration. If the delegating RN does not feel the unlicensed person has demonstrated competency in the performance of the task then she/he may refuse to delegate the task of medication administration. **In addition, the delegating RN must provide supervision to the delegatees and document this supervision.** *It is important to note that the RN instructor teaching the Medication Administration Program may not always be the RN delegating and supervising the class participants.* **The delegating RN must review and document staff competencies in medication administration, at least annually.** Additional information on nursing delegation is included in the Instructor Appendix section of the training curriculum. (Chapter XIII Rules and Regulations Regarding the Delegation of Nursing Tasks)

In March 2002 the Colorado Board of Nursing excluded the licensed family child care provider from the requirement for delegation of the administration of the routine medications covered in this training curriculum. There are requirements the family child care provider must meet to qualify for the exclusion from delegation and these requirements are delineated in section 10.4 of Chapter XIII Rules and Regulations Regarding the Delegation of Nursing Tasks. As mentioned earlier, this document is located in the Instructor Appendix of the training curriculum.

There are some medications that will not be covered in this course. There may be occasions when the RN, in a one-to-one delegation, may determine it is appropriate to delegate such medications for a child with a stable condition. This will be based on individual situations utilizing a current health care plan for the child.

Purpose

The purpose of this training is to teach unlicensed personnel basic information about administering medication to infants, toddlers, preschool and school-aged children in school, including public, private and charter schools; preschools that are part of those programs; child care, including family child care homes; camp programs, resident and day camps; and other community-based settings.

Goal

The goal of this training is to ensure safe and accurate administration of oral, topical, inhaled and emergency medications to children in school, including public, private and charter schools and preschools that are art of those programs; child care, including family child care homes; camp programs and other community-based settings.

Student Participant Responsibilities

At the end of the Medication Administration Instructional Program training school, child care or camp personnel will:

- Recognize the responsibility in giving medications safely and accurately.
- Understand the general purpose of medication.
- Demonstrate proper hand washing and universal precautions.
- Demonstrate competency in the storage, measuring the correct dosage and administration procedures of different types of medications using various medication containers and measuring devices, e.g., oral, inhaled, topical, eye, ear, nose, and emergency medications.
- Demonstrate appropriate and accurate record keeping, including proper documentation of all doses of medication administration.
- Describe medication errors and how they can be avoided.
- Describe the student participant's responsibility in the performance of the delegated task of medication administration, under the supervision of the RN.
- Use resources appropriately.
- Pass a written test answering 84% (21 out of 25) of the questions correctly.
- Receive a certificate of completion.

The complete training must be retaken every three years by staff who administers medications to children in all types of child care programs licensed by the Colorado Department of Human Services Division of Child Care. This includes family child care homes, centers, preschools that are part of public schools, before and after school programs and both resident and day camps.

RN Instructor Responsibilities

- Maintain nursing competencies to properly administer medications and perform inhaled treatments to infants, preschool and school-aged children, in the school, child care and other community settings.
- Demonstrate knowledge of Colorado Nurse Practice Act, Colorado Department of Public Health and Environment Sanitation Regulations, and the Division of Child Care licensing regulations, as appropriate.
- Maintain a record of personnel who have completed this training.
- As appropriate, maintain current RN instructor status with Qualistar Early Learning (www.qualistar.org). *This application process is only required for RN instructors who teach unlicensed personnel in school and child care programs that are licensed by the Colorado Department of Human Services, Division of Child Care. For more information contact Qualistar Early Learning at 303-339-6800.*
- Submit names of all trainees who will administer medications to children in programs licensed by the Colorado Department of Human Services, Division of Child Care, to the Qualistar Early Learning Medication Administration trainee data base. This process is now done online and instructors will need their user name and password to access this area of the web site. www.qualistar.org

Instructional Program Requirements	Topic & Instructional Strategies
RN Instructor Familiar with: (see Appendix for reference information) ♦ Colorado Nurse Practice Act and Chapter XIII Rules and Regulation Regulating the Delegation of Nursing Tasks ♦ Colorado Department of Public Health and Environment regulations governing schools and child care centers ♦ Division of Child Care licensing information, as applicable ♦ These regulations pertain to licensed family child care providers, child care facilities, before and after school programs and camp programs ♦ Medication Administration in the School Settings: Guidelines from the Colorado Department of Education http://www.cde.state.co.us/cdesped/download/pdf/Medication_Admin_Guidelines.pdf ♦ Administering medications to infants, toddlers and school-aged children Note: An LPN may not teach the Medication Administration Instructional Program. **Time** 4 – 4 ½ hour class **Recommended Student to Instructor Ratio** ♦ Maximum of 12-15 students Note: Class may take longer than 4 ½ hours with 15. More students may be allowed for the lecture part of the training as long as the ratio of 1 RN to 12-15 students is maintained for the competency verification/return demonstration. **Materials Needed** ☐ **Instructor Manual** ☐ **Student Handbook** ☐ **Severe Allergy Module** ☐ **Asthma/Inhaled Medications Module** ☐ **Medication Administration video tape** (optional) ▸ "*Medication Administration in Child Care"* ▸ *"Assisting Children with Medications at School: A Guide for School Personnel"(out of production, but copies may be available, see page 5)* ▸ **Recommended videos**: (optional) ▸ *"It Only Takes One Bite*" ▸ *Epi-pen®: Epinephrine Auto-Injector [1.Self Administration Version; 2. Parent/Caregiver Version]* ▸ On line video link offering instruction on how to use the Epi-Pen® in both English and Spanish. http://www.epipen.com/howtouse.aspx ▸ "**Different samples of containers for**: ▸ Pills, capsules, tablets (e.g., common oral medicines, Tylenol®; Motrin®, generic/name brand) ▸ Liquid medications (e.g., common oral medicines, Tylenol®, Motrin®, generic/name brands; infant and child preparations) ▸ Topical medications (creams and ointments) ▸ Eye and ear medication ▸ Devices for inhaled medication (various spacers, peak flow meters, nebulizer machine) ▸ Measuring devices (syringes, medicine cups, spoons, droppers) ▸ Disposable gloves	*Copies of the Child Care Licensing Regulations may be obtained from the State Forms Center 4200 Garfield St. Denver, CO 80216-6517 303-370-2165 There is a fee. The rules are also available online at:* www.cdhs.state.co.us *Various types of candy and water may be used to simulate actual medications*

- Pill counter
- Pill cutter (optional)
- EpiPen® trainer

☐ **Examples of Medication Authorization forms**
☐ **Blank Medication Log Forms for student practice**
☐ **Situational Scenarios**
☐ **Medication Administration Written Test**
☐ **Evaluation**

Refer to the Sample Forms Section

Note: *There are various samples for school, child care and camp programs. These may be modified as appropriate*

Ordering Information

Videos and EpiPen® Trainer

- *Medication Administration in Child Care*
- Available through State Forms Center. 4200 Garfield St.
- Denver, CO 80216-6517 303-370-2165.
- Or Contact Qualistar Early Learning 303.339.6800
- www.qualistar.org
- Cost: Approximately $15.00

- Assisting Children with Medications at Schools: A Guide for School Personnel University of Colorado School of Nursing. Limited number of DVDs available by contacting Kathy Patrick, Principal Consultant, School Health Services at Colorado Department of Education, 303 866-6779. Cost: Approximately 10.00 to cover shipping and handling.

- *It Only Takes One Bite.* Available: The Food Allergy Network,
- 10400 Eaton Place, Suite 107, Fairfax, VA 22030
- 1-800-929-4040. www.foodallergy.org Cost: $20.00
- Note: The Food Allergy Network offers many valuable resources.

- *Epi-pen®: Epinephrine Auto-Injector [1.Self Administration Version; 2. Parent/Caregiver Version]*
- Available: Dey Laboratories
- 1-707-224-3200 ext. 2820
- Cost: Free of charge for one video, limited quantity available.

- Administering Medications in Schools
- Available: Coastal Training Technologies Corporation
- 1-800-725-3418
- Cost: Check online for current pricing
- Online preview at http://www.coastalschools.com/studenthealth.html

Nebulizers

- Apria Healthcare™ can provide returned, refurbished, and sanitized nebulizers for a cost of up to $25. Call 720 922 4602 and say you are a school nurse/child care consultant and want to purchase a used nebulizer for training use.
- Call local home health care agency, durable medical equipment company, or full service pharmacy. Explain you are a school nurse/child care consultant who teaches the state approved medication administration course and need a nebulizer compressor for instructional purposes only. Ask if there is a returned refurbished nebulizer that could be donated for teaching purposes only.

Medications *Covered* in this Instructional Program

- **Typical and Routine Medications for Short Term Use**
  - Antibiotics
  - Eye and ear drops
  - Non-narcotic pain medications
  - Ointments and creams used as a *treatment* for a skin condition
  - Over-the-counter medications

- **Medications Taken on a Regular Basis for Chronic Health Conditions**
  - Asthma medications, including inhalers and nebulizers
  - ADD/ADHD medications
  - Antidepressants
  - Oral seizure medications
  - Routine heart medications
  - Medications for muscle spasms

  Note: "As needed" medications require specific instructions, including time interval for administration, regarding when the medication needs to be administered. Unlicensed persons may not use judgment regarding whether or not to give a medication.

- **Emergency Medications**
  - Epi-Pen® and antihistamines

  Note: Individualized health care plans or written health care provider instructions are necessary for children requiring nebulizer treatments and emergency medications.

Medications *Not Covered* in this Instructional Program

The following medications are NOT covered by this course.

- **Medication that Requires Nursing Judgment**
- **"As needed" Medications for Health Conditions, e.g., asthma,** These medications require nursing assessment unless there is a written health care plan or specific instructions including time interval for administration.
- **Injectables other than the EpiPen® , e.g., glucagon or insulin**
- **Medication that Requires Taking Blood Pressure or Pulse Before or After Giving Medication**
- **Medications Given by Naso-gastric (NG) or Gastrostomy tube (G-tube)**
- **Rectal Medications**
- **Experimental Medications**
- **Homeopathic and Herbal Preparations**

These medications are to be administered by an RN or the child's parent or guardian.

There are occasions when these medications may be delegated by the RN consultant or school nurse, in a one-to-one situation for the child with a stable health condition. This is determined on an individual basis and only with a current, detailed health care plan.

Topic & Instructional Strategies

Delegation and the Colorado Nurse Practice Act

The Colorado Nurse Practice Act is the state law that licenses and regulates the practice of nursing and mandates what an RN and an LPN may do in their practice. This law prohibits other unlicensed persons from performing tasks for which a license is required. The "*delegatory clause"* was added to the Colorado Nurse Practice Act in 1992 and permits an RN to delegate the responsibility of medication administration and other nursing tasks to unlicensed personnel, under certain conditions. (12-38-132 C.R.S.)

The "Rules and Regulations Regarding the Delegation of Nursing Functions" were adopted in 1992 and outline what and how an RN may delegate to an unlicensed individual. These "Rules and Regulations" were last amended in 2007. In Colorado, medications are legally administered by an RN or by unlicensed personnel to whom the RN has delegated the task of giving medication. An LPN may administer medications under the supervision of a physician or an RN. However, an LPN may not delegate medication administration to unlicensed personnel.

The administration of medications by unlicensed persons falls under Chapter XIII of the "Rules and Regulations Regarding the Delegation of Nursing Functions". There is specific language addressing the administration of medications in schools and child care programs.

This instructional training program is designed to give unlicensed personnel, in school, child care and camp programs, basic information on the steps involved in the administration of medication.

Training alone does not constitute delegation. After completing this medication administration training, unlicensed personnel must demonstrate competency in their ability to administer medication to the RN delegating the task of medication administration. It is important to note that the RN teaching the medication administration class may not always be the RN delegating and supervising the class participants. The delegating RN must review and document staff competencies in medication administration, at least annually and provide supervision of all delegated tasks on a schedule to be determined by the RN.

The RN instructor discusses with the student participant the many rights and responsibilities involved in the administration of medication.

This manual includes various detailed legal references related to the practice of professional nursing. This information is not included in the student handbook. It is the instructor's responsibility to be knowledgeable in this area. The student participant should be encouraged to seek guidance and support from the RN consultant responsible for the delegation and supervision of medication.

See the Medication Skills Checklist in the Forms Section

Special notes about the delegation of medication administration in the school or child care setting

- Unlicensed persons to whom the RN delegates medication administration may not further delegate that task to another individual nor may that task be expanded without the assessment and re-delegation by the delegating RN.
- At any time, the RN may withdraw delegation if, in the opinion of the delegating RN, the unlicensed person (delegatee) is unable or fails to perform the task of medication administration in accordance with the direction provided by the RN.
- Ongoing supervision of all delegated tasks and procedures must be documented by the RN.
- Supervision of delegatees should take place on a schedule determined by the RN.
- The RN may withdraw the delegation of a particular medication or special health procedures, if there is a change in the child's condition, or there is a change in the nature of the medication.

Refer to the Appendix Section for the Delegatory Clause of the Nurse Practice Act (section 12-38-132) and Chapter XIII Rules and Regulations Regarding the Delegation of Nursing Tasks

- The RN may also withdraw delegation if the delegatee is not performing the task as trained and delegated by the RN.
- The RN should provide notice of withdrawal of delegation in writing to the delegatee and the program manager/school administrator. For child care programs, the licensing specialist should also be notified.

The decision to delegate can only be made by the RN in a given situation. This decision cannot be made by a parent, physician or program administrator.

Refer to Chapter XIII in the Appendix Section

Remember, **licensed family child care providers** are excluded from the delegation requirement when administering routine medications in their family child care homes (see Chapter XIII, Rules and Regulations Regarding the Delegation of Nursing Tasks 10.4 A-E).

Other Important Laws

Americans with Disabilities Act (ADA) The ADA covers private, non-church operated schools, child care facilities and preschools. The ADA requires those programs make reasonable accommodations for children with mental or physical disabilities and chronic illness. Children in schools, child care, camp programs and other community settings, can not be excluded on the basis of a disability. The program must consider each case individually and comply with the requirements of ADA.

Refer to the Appendix Section for information on ADA and FERPA.

Section 504 is an amendment to the Rehabilitation Act of 1973. Unlike the Individuals with Disabilities Education Act (IDEA), which is an education statute based in civil rights law, Section 504 requires that any agency that receives federal funds must provide qualified persons with disabilities equal access to the services, programs and activities offered by the agency. Section 504 specifically prohibits discrimination on the basis of a disability or "handicapping condition" by recipients of federal funds.

Confidentiality

Each program should have a confidentiality policy. Information about a child's health condition must not be discussed with anyone unless the parents have given their written permission to do so. Medication should be administered as privately as possible and the type of medication should never be mentioned or discussed with anyone else, except on a need to know basis.

A breach of confidentiality, the sharing of information without written permission, can result in serious consequences. Such disclosure can cause the child and family great distress and are possible grounds for lawsuit.

Federal Law, Family Education Rights and Privacy Act (FERPA) protects the right to privacy of educational information. The right to inspect and review education records is guaranteed to parents under FERPA. This law applies to all schools that receive funds under an applicable program from the U.S. Department of Education. Therefore all public schools are subject to this act. The three most important provisions of this act are:

1. Access by parents to all education records directly related to the student;
2. The right to an administrative hearing to challenge "inaccurate, misleading, or otherwise inappropriate" data in the child's educational records;
3. Limitations on the school district's disclosure of information in the education records to third parties without written parental consent.

School district employees are reminded to follow FERPA requirements as reflected in the school district policy. FERPA requirements are to be on file in each school building. (See Appendix for more complete information).

This information may not be applicable for all training groups. RNs are encouraged to know their audience to determine the need to provide this information.

Health Insurance Portability And Accountability Act (HIPAA)

The HIPAA Privacy Rule went into effect April 14, 2003 to protect Individually Identifiable Health Information used or disclosed by a HIPAA Covered Entity in any form, whether electronically, on paper, or orally. HIPAA covered entities are health plans, health care clearinghouses, and health care providers who transmit Individually Identifiable Health Information in connection with certain transactions.

References:

Bergren, Martha, DSN. (2003, July) National Conference on the HIPAA Privacy Rule, *NASN Newsletter, Vol. 18, Number 4, p. 20*

Gelfman, M. (with Schwab, N.). (2001). School health records and documentation. In N. C. Schwab & M. H. B. Gelfman, Eds. *Legal issues in school health services.* North Branch, MN: Sunrise River Press.

Taliaferro, Vicki BSN. HIPAA and the Schools., *retrieved 4/28/08* http://www.schoolnurse.com/med_info/hipa_and_school.html

U.S. Department of Health and Human Services (USDHHS). (2006). HIPAA Administrative Simplification: Enforcement; Final Rule. Retrieved 4/28/08, http://www.hhs.gov/ocr/hipaa/

http://www.dora.state.co.us/nursing/statutes/NursePracticeAct.pdf

http://www.dora.state.co.us/nursing/rules/ChapterXIII.pdf

First Steps to Discovery, The Legal Center for People with Disabilities and Older People, 1999)

http://nces.ed.gov/pubs2005/tech_suite/app_B.asp

http://www.usdoj.gov/crt/ada/adahom1.htm

PURPOSES OF MEDICATIONS	Topic & Instructional Strategies
The Purposes of Medications are to: ♦ Prevent illness. ♦ Relieve symptoms. ♦ Control or cure health problems **How Medications Work in the Body** Medications enter the blood stream by different routes. ♦ Oral medications are digested or broken down in the stomach and enter the bloodstream through the intestines. ♦ Inhaled medications are absorbed through the lining of the respiratory tract into the blood. ♦ Topical medications are absorbed through the skin and into the blood. Once medications are in the blood, they are metabolized or converted to a usable form in the liver or the kidneys, and they pass out of the body through the kidneys. Medications can damage the liver or kidneys. Compared to adults, children, especially from birth to 3 years of age, are immature and process medicines ineffectively. Children are especially susceptible to medication side effects, overdoses, allergies and paradoxical effects. Children are smaller than adults, and need less medicine to obtain the desired effect. Many medications for children are prescribed based on the child's weight. However, this is not true for most over-the-counter medications. Medications can work together or against each other. Some drugs increase the effect of other drugs; others can decrease or negate the effects of another drug. Some drugs work faster when taken with food, other drugs work slower. Some drugs should not be taken with certain foods. Medications can produce both desired and undesired results. The desired result is the reason for which the drug was prescribed. **Three Types of Undesired Results** 1. **Side effects** are natural, expected and predictable actions of the drug that may occur at the same time as the desired effect. Most side effects are minor. Examples include dry mouth and/or drowsiness experienced after taking an antihistamine. 2. **Adverse reactions** are unexpected and potentially harmful. Examples include double vision, vomiting and liver damage. If an adverse reaction is observed, the RN consultant and parent should be notified immediately. The health care provider may want to examine the child, change the dosage or the medication. 3. **Allergic reactions** are difficult to predict. Allergic reactions may involve many different types of symptoms. Skin disturbances, e.g., itching, rashes or swelling, are most common. If an allergic reaction is observed, notify the parent immediately and request follow-up with the health care provider. A most dangerous type of allergic reaction is anaphylaxis. **CALL 911.** **Drug Interactions** may result when two or more drugs taken together affect each other's action in some way. One or both drugs may become more or less effective, or undesirable actions may occur. Drug interactions are not necessarily bad; in fact, some are brought about intentionally to increase the therapeutic effect of certain drugs.	

CLASSIFICATIONS OF MEDICATIONS

Topic & Instructional Strategies

System of Naming Medication

- Generic name: related to chemical or official name of the drug
- Brand name: designated and patented by the manufacturer

Prescription medications, including controlled substances, require a written order by a person with prescriptive authority. The order is written on a special prescription form. The pharmacist keeps the original prescription form on file.

According to the Colorado Board of Pharmacy Persons with Prescriptive Authority include:

- Physician, MD or DO
- Podiatrist, DPM
- Dentist, DDS or DMD
- Advanced Practice Nurse; Nurse Practitioner or Clinical Nurse Specialist
- Physician Assistant who has direction from a physician or written protocol

Persons who do not have Prescriptive Authority in Colorado:

- Pharmacist
- Chiropractor
- Herbalist
- Nutritionist
- Psychologist
- Nurse, who is not an Advanced Practice Nurse with prescriptive authority
- Occupational or Physical Therapist

It is very important that parents understand the health care provider and pharmacist's instructions. For example: How will this medication help the child, how much and when is the medication given, are there any side effects the parent should know about and how to use the medication?

Common prescription medications for children include antibiotics, ear/eye preparations, skin preparations, inhalers or nebulizer treatment, and analgesics

Controlled substances are prescription medications that are under the jurisdiction of the Federal Drug Enforcement Agency. These medications present a greater than usual risk of becoming habit forming or of being sold and used illegally.

These medications have special storage requirements:

- Must be stored in a locked storage area.
- Access to them must be limited.
- Medication amount is documented when it is received, at the time of administration and at the time returned to the parent.

Common Controlled Substances Used with Children

- Adderall® Dexedrine®, (amphetamine)
- Ritalin® (methylphenidate)
- Klonopin® (clonazepam)
- Valium®, Diastat® (diazepam)
- Luminal® Sodium (phenobarbital
- Robitussin AC®
- Phenergan with codeine®

There are five schedules of drug and drug products under the jurisdiction of the Controlled Substances Act, (see Appendix Section).

Over-the-counter (OTC) is medication that may be purchased without a prescription. The Food and Drug Administration decides whether a medication can be safely used by a consumer without the advice of a health care provider. This does not mean that OTC's are harmless. Like prescription medications, OTC's can be very dangerous to a child, if given incorrectly.

Common over-the-counter medications used for children include *fever reducer or pain reliever, antihistamines, mild cortisone cream, cough syrups, cold remedies, nose drops, and medications used for common gastrointestinal problems.*

In January 2008, the American Academy of Pediatrics (AAP) supported a public health advisory put out by the US Food And Drug Administration. This advisory recommended that OTC cough and cold medications should not be used for infants and children under age 2 because of the risk of life threatening side effects.

Reference:
http://www.aap.org/advocacy/releases/jan08coughandcold.htm

It is recommended that parents discuss the use of OTC medications with their health care provider before giving any medications to their child. Parents should be especially careful in giving OTC medications to an infant. Giving a child more than one cold or cough medicine to treat different symptoms can be dangerous. Some of the same ingredients may be in each product. Also, many of these medicines contain acetaminophen. Read labels carefully.

Over-the counter medications administered in the school or child care program require written authorization from the health care provider with prescriptive authority and parent written permission.

Blanket Permission Forms are not acceptable for most OTC medications.

Note: Some drugs are both OTC and prescription. They are considered OTC if the active ingredient is small in each dose. Those that require a prescription contain the active ingredient in a larger dose. **Remember, all medications require written authorization from a health care provider with prescriptive authority along with parent written permission.**

Over-the-counter ointments and creams, such as sunscreen, lip balm, skin creams and diaper ointments, that are used for ***preventive*** purposes **do not** require a written authorization from a health care provider with prescriptive authority. However, parent written permission is required, and all label instructions must be followed. If the skin is broken or an allergic reaction is observed, discontinue use and notify the parent or guardian.

Over-the-counter ointments and creams used as a ***treatment*** for a skin condition such as broken skin, eczema, burn, or bleeding with severe diaper rash, require a written authorization from the health care provider and written parent permission.

Note: include a statement on the permission form that sunscreen or diaper ointment will not be applied to broken skin or in the presence of a severe or persistent rash without written authorization from the health care provider.

Recommendations for use:

- Sunscreen with a SPF of 30 is recommended for children. Children under 6 months of age may have sunscreen applied with the written authorization of the health care provider. Refer to the American Academy of Pediatrics guidelines. www.aap.org In reality, children younger than 6 months of age should be covered with light clothing, be in the shade and be kept inside during peak sun exposure hours.
- Diaper ointment or cream is recommended after each diaper change. Applying a thin barrier to the skin helps to protect and prevent skin breakdown or rash.

Homeopathic Medicines

Homeopathic medicines are drug products made by homeopathic pharmacies. They contain a very small amount of an active ingredient. These remedies are made from many sources, including plants, minerals or animals. They are most often sold over-the-counter. Only homeopathic products sold for "self limiting" conditions can be sold without a prescription. The FDA regulates homeopathic remedies under provisions of the Food Drug and Cosmetic Act.

The active ingredient is believed to be able to cause a symptom of the illness, and then to stimulate the body to buildup resistance to the illness. For example, if a person has a fever, the active ingredient in the homeopathic medicine is supposed to cause a fever. Homeopathic products are exempt from manufacturing requirements, from expiration dating and from finished product testing for identity and strength.

Common homeopathic substances include *dandelion, plantain, sodium chloride, arsenic oxide, venom of poisonous snakes and chemical drugs such as penicillin.*

Herbal Preparations

Herbal preparations have one or more active ingredients in them that are taken from plants. They are simply drugs in a dilute form. They are sold over-the-counter.

Herbal preparations are unregulated, and products may be sold until the federal government determines they are unsafe. The amount contained in the preparation or what the active ingredients included in the preparation is not always known. Information regarding side effects and interactions with other medication is not widely known.

No dosage guidelines exist for the administration of herbal or botanical preparations to young and school-aged children. The National Institutes of Health Office of Alternative Medicine is funding research to test the effectiveness of many products in adults. However, the long-term effect of herbal preparations on children is not known.

Common herbal preparations include *Echinacea, ginkgo biloba, valerian, garlic and feverfew.* **Homeopathic medications and herbal preparations** ***are not included*** **in this** **Medication Administration Instructional Program.** **Therefore, these medications and preparations** ***may not be delegated*** **within the routine task of medication administration.** **There are occasions when these medications or preparations may be delegated by the RN consultant or school registered nurse, in a one-to-one situation for the child with a <u>stable</u> health condition. This is determined on an individual basis, based on the RN's knowledge and expertise in homeopathic and herbal preparations and with a current, health care plan. Other issues to be considered when delegating these preparations are discussed in the article available on the Colorado Department of Education web site.** **http://www.cde.state.co.us/cdesped/download/pdf/FF-HerbalRemedies.pdf**	

MEDICATION ROUTES
COMMON FORMS OF MEDICATIONS

Topic & Instructional Strategies

Medications come in different forms and dosages. Medication instructions should always include the route of the medication. Instructions must be read and followed very carefully.

Oral medications are given by mouth.

- **Tablets**
  - Chewable tablets must be chewed and then swallowed, e.g. Tegretol®, amoxicillin.
  - Uncoated and coated tablets are swallowed whole and are not chewed, e.g. Advil ® tablets.
  - Scored tablets may be split in two to give the appropriate dosage. The tablet should be split in two by the pharmacist or parent, e.g. Ritalin®.
  - Quick dissolve strips dissolve instantly when placed in a child's mouth, e.g. Benadryl® Quick Dissolve Strip.
  - Quick Dissolving tablets also dissolve quickly when placed in the mouth, e.g. Claritin® Redi-Tab.
- **Capsules** are taken by mouth and swallowed whole. Do not crush or chew.
- **Sprinkles** are contained in capsules. The contents are taken apart and sprinkled on food, as directed.
- **Liquids**
  - Suspensions are fluid substances with solid particles. They separate when left standing and must be shaken well before administration. These medications usually need refrigeration, e.g., amoxicillin and Ceclor®. Follow label instructions.
  - Syrup or Elixir is a sweetened liquid that contains dissolved medication, e.g., Tylenol® elixir or prednisolone syrup. Refrigerate oral liquid medications to make the taste more pleasant.

Inhalants are medications that release a medicated mist or powder.

- **Nasal spray** delivers medication into the nose through a spray.
- **Metered dose inhalant is** inhaled through the mouth with the use of various adapters or mouthpieces.
- **Respiratory nebulizer machine** delivers liquid medication in a fine mist.

Topical medications include eye drops, eye ointments, ear drops and ointments, creams and patches that are applied to the skin.

Injectable medications are administered by the RN or may be delegated to school or child care personnel by the RN consultant or school registered nurse.

- **Emergency injectables** such as the Epi-Pen® are administered during a severe and life-threatening allergic reaction. A written health care plan is necessary.
- **Other injectables:** such as insulin or glucagon require an individualized written health care plan, individualized training, one-to-one delegation and supervision, as determined appropriate by the RN.

Note: *Asthma management and the administration of inhaled medications including nebulizer treatments will be covered in a separate module of this training curriculum.*

Severe allergy management will be covered in a separate module of this training curriculum

Rectal medications such as Diastat® are inserted into the rectum and must be administered by an RN consultant or school nurse or delegated by the RN. An individualized written health care plan is required. If delegated, the RN must provide individualized training, one-to-one delegation and ongoing supervision when rectal medications are delegated to unlicensed persons. The administration of rectal medications is not a part of this training curriculum.	

CARE AND STORAGE OF MEDICATIONS	Topic & Instructional Strategies
. **General Guidelines** ♦ Prescription medication must **ALWAYS** be stored in the original labeled bottle or container. ♦ Over-the-counter medication must also be stored in the original container and clearly labeled with the child's name. ♦ Store medications and supplies in a clean, secure and locked area. Emergency medications should be stored in the original container, in a clean storage area inaccessible to children. The decision to lock these medications should be made according to center policy in consultation with the nurse consultant taking into consideration that these medications MUST be IMMEDIATELY available to trained personnel at all times the children are present in the program. ♦ Keep medications in a cool, dry, dark place. Excessive heat or cold, light and exposure to air can affect some drugs. ♦ Return to the parent any medication containers with labels that cannot be read. ♦ The parent or guardian is responsible for bringing medication to the school or program. Notify parents when the medication supply is low. ♦ The parent or guardian is responsible for bringing the controlled medication to the school or program. Children should not be permitted to transport medication. Note: The school-aged child in a school or child care program may carry their inhaler, based on the recommendation of the health care provider, parent request and the RN assessment. (see Asthma/Inhaled Medications) **Controlled Medications** ♦ Store controlled substances in a locked storage area. ♦ Access to these medications must be limited to delegated staff. ♦ Count and document the drug amount when it is received, when it is returned to the parent or when it is disposed. **Refrigeration** ♦ Refrigerate medication as directed on the bottle. ♦ The refrigerator is kept in an area that is secure and is not accessible to children or unauthorized persons. ♦ Store medication in a leak-proof container in a designated area of the refrigerator separated from food *OR* in a separate refrigerator, used only for medication. ♦ Check the temperature inside the refrigerator periodically. The ideal temperature is between 36 - 46º F. **Expired or Discontinued Medications** ♦ Return to the parent or guardian any expired medication or medications that are no longer being used. ♦ If the medicine has not been picked up within one week of the date of parent or guardian notification, then dispose the medication per program policy and the following disposal procedures. ♦ Medications should not be sent home in a child's backpack or stored within reach of children.	*"Locked" does not only mean lock and key or combination lock, but can be a child-proof device in some settings for a* ***non-controlled substance.*** ***Note:*** *The RN consultant or school nurse develops a program policy that addresses the transport, storage, record keeping, the administration and disposal of medication, including controlled substances.* ***Refer to the Sample Forms Section for the "Sample Medication Administration Policy"…***

Disposal of Medications

All medications in out-of-home settings no longer being used or expired should ideally be returned to the child's parents for disposal. If this cannot be done staff from the school or child care program should properly dispose of the medication.

Refer to the Sample Forms Section for the "Disposal Log"

According to the Colorado Department of Public Health and Environment, it is no longer recommended that even small quantities of medications be flushed down the drain. Some medicines can disrupt or destroy the useful microorganisms in the sewage treatment system and/or may pass through the system intact and potentially contaminate downstream water resources.

Procedures for stabilizing medications include:

- Securely wrap unusable or unwanted medications in several layers of newspaper and enclose in a plastic bag or trash bag. Put this bundle in your regular trash.
- Store trash containing disposed medications out of reach of children and pets until it can be picked up by the trash disposal service and/or taken to the land fill.

Further recommendations from the EPA include information for medication disposal as well:

- Keep the pharmaceuticals in their original container since the labels may contain safety information, the container is chemically compatible, and the caps are typically water tight and child proof
- Black out the client's name to protect confidentiality.
- Add a small amount of water to the solid drug or some absorbent material such as kitty litter, sawdust or flour to liquid drugs before recapping. These measures are intended to discourage any unintended use of the drug
- Double enclose the contained drugs in a bag or any other waste container to prevent immediate identification of a drug container or prevent a glass drug container from breaking during the disposal process.

Federal guidelines offer suggestions on the way to dispose of a larger quantity of medications in a single container:

- Take the unused, unneeded, or expired prescription drugs out of their original containers.
- Mix the prescription drugs with an undesirable substance, like used coffee grounds or kitty litter, and put them in impermeable, non-descript containers, such as empty cans or sealable bags, further ensuring that the drugs are not diverted or accidentally ingested by children or pets.
- Wrap these containers so that the content can not be easily seen.
- Throw these containers in the trash
- Ensure that the trash is inaccessible to children and or pets

In addition, a staff person (or RN) and a witness should document disposal on the Medication or Disposal Log, the date, time, child's name, name of medicine, amount of medicine and signature of RN or other staff person and witness.

Programs should contact the local health department if additional recommendations for safe disposal of controlled substances are needed.

Disposal of Unused Epi-Pens®: (Also presented in the Severe Allergy Module)

An unused/expired Epi-Pen® should ideally be returned to the child's parent for disposal. Child care or school staff can return the unused device to the prescribing pharmacy for disposal, or in some communities the device may be taken to a local health department. Please call ahead to ensure that the location will dispose of the device for you. There is also information about safe disposal of these devices on the following web sites:

www.safeneedledisposal.org

Disposal of Inhaled Medications: (Also presented in the Asthma/Inhaled Medications Module)
Try to give all expired or unused medications to parents for disposal, but if you must dispose of them, follow the procedure below:

- Make sure the inhaler is empty, if not; you should go to a well ventilated area (outside) and dispel what's left inside. Double wrap in a bag or newspaper, place in regular trash.
- Be sure the trash containing the disposed medications is out of reach of children.

References:

CDPHE - Hazardous Materials and Waste Management Division (303) 692-3320
(888) 569-1831- X 3320 toll free www.cdphe.state.co.us
EPA - www.epa.gov

CDC - http://www.cdc.gov/needledisposal/

Office of National Drug Control Policy-
http://whitehousedrugpolicy.gov/news/press07/02/2007.html

Self Carry Medications
In Colorado, children may be allowed to self carry asthma and anaphylaxis medications in school as well as some group care settings. Self administration in these settings refers to situations in which students carry their medication on their person and administer the medication to themselves. There are orders from their healthcare provider, authorization from their parent, and the administration is done in accordance with school district or program policy. Typically this medication is not handled by school or child care personnel nor stored in the program's medication storage area.

A copy of these guidelines as well as a sample contract are in the appendix of the Asthma/Inhaled Medications Module

According to Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines a variety of "factors should be assessed *by the school nurse* in determining when a student should self carry and self-administer life-saving medications." These factors include, but are not limited to:
Student Factors:

- Desire to carry and self administer
- Appropriate age, maturity and/or developmental level
- Ability to use correct technique in administering the medication

- Willingness to comply with school/program rules about the use of the medication while in the setting

Parent/Guardian Factors:

- Desire for student to self carry and self-administer
- Awareness of program policies and parent responsibilities
- Commitment to ensuring that the child has the medication, medications are refilled when needed, medications are not expired
- Provision of back-up medication for emergencies

School/Program Factors:

- Availability of trained staff while children are in the program setting
- Availability of trained staff in case of loss or inability to administer medication
- Ability to disseminate information about medication use to all staff who need to know
- Communication system to contact appropriate staff in case of a medical emergency
- Opportunity for school nurse to assess child's status and technique
- Availability of the school nurse to provide oversight and support

Open communication is the key and this communication should include healthcare providers, families, and school personnel especially the school nurse. In addition, a contract with all students who self carry is recommended so that the proper safeguards can be in place.

Reference:

Hootman, J., Schwab, N., Gelfman, M.H.B., Gregory, E., and Pohlman, K., (2001). School Nursing Practice: Clinical Performance. In N. Schwab and M Gelfman (Eds.), *Legal issues in school health services*. North Branch, MN: Sunrise River Press.

COMMON MEDICATIONS

Topic & Instructional Strategies

People in the United States spend millions of dollars on the use of over-the-counter medication. Many of these medications are unnecessary, and in the case of young children, particularly under the age of 5 years, the effect of these medications often produces side effects, instead of providing relief to bothersome symptoms.

"*The increase in parents working outside the home puts pressure on families, child care providers and health professionals alike to keep children symptom free and in care. As a result, we may tend to reach quickly for over the counter remedies to alleviate symptoms; remedies do little, if anything, to help. Not only is much of this medicine not beneficial, but some of it also could be doing harm"*

Dr. James M. Poole, MD, FAAP, member of the American Academy of Pediatrics Committee on Early Childhood, Adoption and Dependent Care."

Non-prescription Medications for Common Symptoms

- If the child is playing and sleeping normally, non-prescription medications are not needed.
- Medications should only be given for symptoms that cause significant discomfort, such as repeated coughing or difficulty with sleeping. Parents should consult with the child's health care provider.
- Viral illnesses respond well to rest, fluids and comfort measures. They do not respond to antibiotics.
- Over-the-counter medications are usually not helpful and may be harmful.

Common Over-the-Counter Medications

- **Fever reducer or pain reliever** (see page 22).
- **Cough syrup: Humidifying the air best relieves** a cough. Some cough medicines (expectorants) may also help loosen mucous. Suppressing any cough with cough suppressants prevents this normal reaction from occurring. Coughing is necessary to clear the lungs and suppressing an asthmatic cough could be fatal.
- **Cold remedies:** Combinations of antihistamines and decongestants can have side effects such as hyperactivity, sleeplessness and/or irritability. Giving the child more than one cold medicine to treat different symptoms can be dangerous. Many cold preparations contain acetaminophen. If the child is already receiving acetaminophen, this can lead to an overdose. No cough and cold preparations for children under 2 (see page 13).
- **Cough drops:** Cough drops are not appropriate for child care programs with children under 5 due to the potential for choking. Since cough drops are generally a treatment, and may contain medications such as benzocaine and phenol, the administration of cough drops requires both parent and health care provider authorization as any OTC medication.
- **Saline nose drops**: Infants and toddlers cannot sniffle or blow their nose. If the child is unable to sleep or eat because of thick mucous, saline drops can help clear the nose. Put a drop or two into each nostril. To use a bulb syringe, 1.) Squeeze the bulb, 2.) Put the tip gently into the child's nostril, and 3.) Let go aspirating mucous from the nose. Be careful. Overuse of the bulb syringe can be irritating. Be sure the bulb syringe is cleaned properly, and never shared among children.

Note: *This is reference information on common over-the-counter medications. It is not a required element of the training.*

Remind participants that a written authorization from the prescribing practitioner and the parent or guardian is required in order to administer any of these over-the-counter medications or treatments in school or child care settings.

- **Mild cortisone cream** is used for mild skin rashes or small patches of eczema. Never use this cream for chicken pox, burns, infections, open wounds or broken skin. The use of this cream requires written instructions from the health care provider in order for caregivers to apply this medicine.

- **Diaper creams and ointments** (see pages12-13)

- **Oral electrolyte maintenance solutions** e.g. Pedialyte™: These preparations balance electrolytes lost through diarrhea or vomiting. Children recovering from an intestinal illness may need these preparations as they attempt to return to their regular diet. Typically children should not be in group care settings while needing this replacement. Orders from a person with prescriptive authority are required and should indicate the need for this solution, how often it should be given, the concentration and how long before a child can return to their regular diet.
  http://rpdcon40.ross.com

- **Lice shampoo or cream rinses**: These preparations must be used only as directed and only if live bugs or nits (eggs) are seen. Some home remedies, such as the use of kerosene and gasoline, are extremely dangerous.
  Note: It is recommended that lice treatments be performed in the child's home.

Antibiotics Use

- More than 90% of infections are due to viruses.
- Antibiotics have no effect on viruses and may interfere with the child's ability to fight future infections that are caused by bacteria
- Using antibiotics wisely can help fight antibiotic resistance
- Antibiotics will kill bacteria. That is why it is essential to complete the full 10-14 days of treatment, even though the child may feel well.
- Antibiotics should be given at home whenever possible; once or twice daily dosages are available

Common Antibiotics Used with Children

- Amoxicillin
- Augmentin®
- Erythromycin® mostly used with teens for acne
- Keflex® (cephalexin)
- Pediazole® (sulfasoxazole and erythromycin)
- Zithromax® (azithomycin)

Common Side Effects

- Upset stomach, nausea and/or vomiting, diarrhea – any of the above antibiotics can cause side effects, though some are worse than others. Augmentin® and Keflex® seem to be the worst for diarrhea and Erythromycin is the worst for nausea. Vomiting is a much less common side effect of the above medications, though Erythromycin is the worst.
- Notify the health care provider for severe or prolonged diarrhea.

Adverse Reaction

- Rash or allergic reaction, notify parent and health care provider immediately as any of the antibiotics can cause an adverse reaction.

References:
www.getsmartcolorado.com

Common Oral Seizure Medications

These are medications that help control seizure activity.
The following three medications have been around for years, work well, less expensive, but have more side effects than the newer medications.

- Dilantin™ (pheytoin)
- Tegretol™ (carbamazepine)
- Depakote™ (divalproex sodium)

These medications are newer, can be effective and may be better tolerated than some of the older medications.

- Lamictal™ (lamotrigine)
- Neurontin™ (gabapentin)
- Lyrica™ (pregabalin)
- Keppra™ (levetiracetam)
- Topamax™ (topiramate)
- Zonegran™ (zonisamide)
- Trileptal™ (oxcarbazepine)
- Gabitril™ (tiagabine)

Phenobarbital is an older antiseizure medication that is effective, but can cause sleepiness and therefore is not used as much.

Reference:
American Epilepsy Society: *Retrieved4/28/08*
http://www.aesnet.org/go/patients/post-traumatic-epilepsy/if-i-develop-epilepsy-what-treatments-are-available

FEVER

Topic & Instructional Strategies

A fever is the body's normal response to an infection. It is important to remember that a fever is only a symptom of an infection and is not an illness of its own. Fever turns on the body's immune system, thereby increasing the release and activity of white blood cells and other germ-killing substances.

A fever means the body temperature is above normal. The body's average temperature can vary greatly during the day, between 97.6° F. to 99.5° F. Mild elevations between 100° F. to 101° F. can be caused by exercise, excessive clothing, hot bath or hot weather. Oral temperature can be elevated by hot food and drink. If it is suspected that the temperature elevation is due to these factors, take the temperature again in 30 minutes, after removing the suspected cause.

An infant less than 4 months of age has a fever
if the temperature (axillary) is **100° F. or greater.**

Fever Management Guidelines (temperature taken axillary)

Note: *Check the digital thermometer instructions.*

- For fevers of 100° F.–102° F., cold fluids and removal of outer clothing may be all the child needs to reduce the fever.
- Sponge only if fever is over 104° F., the fever stays high 30 minutes after the child has taken fever-reducing medicine, and the child is uncomfortable. Note: Sponging before the fever reducing medication has taken effect will only cause shivering. Shivering is the body's way to raise the temperature.
- Use fever-reducing medication only if the fever is over 102° F. and if the child is uncomfortable, unless otherwise ordered by the health care provider.
  - Tylenol® (Acetaminophen)**;** given every 4-6 hours, but not more often
  - Motrin®, Advil® (Ibuprofen); typically given every 6-8 hours

- **DO NOT GIVE ASPIRIN (or products with aspirin) TO CHILDREN.**
- **DO NOT GIVE FEVER REDUCERS TO INFANTS LESS THAN 3 MONTHS OF AGE.**
- **Do not give fever-reducing medicine for more than 3 days without further written instructions from the child's health care provider.**

Remember: you must have written authorization
from the health care provider and parent permission
in order to give these medications.

It is very important to understand that these products are available in different concentrations. Infant drops of acetaminophen are highly concentrated so that a sufficient dose can be given in a smaller volume of liquid. Be sure that the dose you have from the health care provider is for the concentration of medication you have been given by the parents. If you have any questions, contact a pharmacy, your school nurse or health consultant.

In addition, alternating Acetaminophen and Ibuprofen cannot be safely recommended and this practice lacks an evidence base.

Reference:

Melnyk, BM. Alternating acetaminophen and ibuprofen in the febrile child: examination of the evidence regarding efficacy and safety. *Pediatric Nursing*. 2003; 29:379-382.

Exclusion from School or Child Care

Fever alone is not a reason to exclude a child from school or child care. Look for fever with a behavior change or with other signs and symptoms of illness such as vomiting or diarrhea. Children in school or group care should be well enough to participate and the care of the child should not interfere with the ability to care for the other children in the school or child care program.

Get immediate medical attention for fever when:

- Babies less than 3 months of age have a temperature of 100° F. or higher.
- A child of any age has a temperature of 105° F. or higher.

In the event the parent, emergency contact person, or the child's health care provider is not available; the caregiver should contact the nurse consultant or emergency medical services for help.

Myths and Facts about Fever

Reference: Pediatric House Calls Online, B.D. Schmitt, M.D., 2007

Myth: All fevers are bad for children.

Fact: *Fevers turn on the body's immune system. Fevers are one of the body's protective mechanisms. Most fevers are good for children and help the body fight infection.*

Myth: Fevers cause brain damage or fevers over 104° F. are dangerous.

Fact: *Fevers with infections do not cause brain damage. Only body temperatures over 108° F. can cause brain damage. The body temperature goes this high only with high environmental temperatures e.g., if a child is confined in a closed car in hot weather.*

Myth: All fevers need to be treated with fever medicine.

Fact*: Fevers need to be treated only if they cause discomfort. Usually that means fevers over 102°-103° F.*

Myth: Temperatures between 98.7° F. and 100° F. are low-grade fevers.

Fact: *The normal temperature changes throughout the day. It peaks in the late afternoon and evening. A low-grade fever is considered to be 100° F. to 102° F.*

Myth: The exact number of the temperature is very important.

Fact*: How the child looks and how the child is acting is what is most important.*

Return to school or child care: A note from the child's health care provider saying a child may return to school or child care does NOT automatically mean that a child must be accepted back into the program. A program should be using their exclusion guidelines/illness policy, consultation with their school nurse or nurse consultant, as well as the information from the health care provider when determining readmittance for every child.

REQUIREMENTS TO ADMINISTER MEDICATIONS

Topic & Instructional Strategies

In order to safely administer prescription or over-the-counter medications, the following requirements must be met:

Training

Persons involved in medication administration must complete a Medication Administration Instructional Program in order to give medications in schools, child care or camp programs.

Delegation and Supervision (Reference: Chapter XIII, Rules and Regulations Regarding the Delegation of Nursing Tasks)

- **Unlicensed persons involved in the task of medication administration must demonstrate competency in their ability to perform this task to the delegating RN, at least on an annual basis.**
- **The RN delegating the task of medication administration is responsible for the documentation of competency and the ongoing supervision of those persons.**
- **The delegating RN is responsible for:**
  - **The development and or approval of program policies and procedures regarding the administration of medication.**
  - **The development and or approval of the documentation tools used for medication administration.**
  - **The selection or approval of persons involved in the task of medication administration. The delegating RN has the right to withdraw such delegation if, in the sole opinion of the delegating RN, the person (delegatee) is unable or fails to perform the task in accordance with the direction provided by the RN.**
  - **Establishing a communication and supervision plan between the delegating RN and the persons involved in the task of medication administration, e.g., on-call, phone or pager availability. Onsite medication audits should be performed on a regular basis.**

Note: *Emphasize to students that they may clarify written orders from the prescribing practitioner, but they make not take verbal orders or change the orders.*

Health Care Provider with Prescriptive Authority Written Authorization for Prescription and Over-the Counter Medications:

- Child's name
- Name of medication
- Current date
- Dosage
- Route (how to administer)
- Time medication needs to be given while in care
- Medication start date and medication end date
- Reason for medication (on occasion, this information may be confidential)
- Side effects that need to be reported
- Special instructions or storage information

Medication samples may be used if the bottle has the name of the medication and the medication strength. The name of the prescribing practitioner and the child's name also need to be written on the container.

<u>Blanket Permission Forms</u> are not acceptable for Over-the Counter Medications or Prescription Medications for chronic health conditions.

All requests to administer medication must include a written authorization that includes the items previously listed above.

Refer to the Sample Forms Section "General Health Appraisal Form"

There is language in the CO American Academy of Pediatrics (AAP) General Health Appraisal form that would allow multiple use of acetaminophen or ibuprofen orders.

Refer to the "For Fever Reducer or Pain Reliever" section of the CO AAP General Health Appraisal.

If that section of the General Health appraisal form is complete for a child including the health care provider and the parent signature, the appropriate dose of the drug listed may be given for a fever over 102° or pain for a period not to exceed three days for the time period that health appraisal is in effect. Some forms may have both drugs listed, but instruct the parents to choose one or the other and bring only that medication to the school or child care setting.

For example, a child that has this order on their 12 month well child general health appraisal form could be given the stated dose of medication for fever or pain for a period of up to three consecutive days until that child reaches 15 month of age and is required to have another well child check. At that time a newly completed appraisal form would be in effect until the children reaches 18 months, the next AAP recommended time for a well child check. (Currently AAP recommends that children from 0-12 years have health appraisal visits at 2, 4, 6, 9, 12, 15,18 and 24 months, and age 3, 4, 5, 6, 8,10 and 12 years.)

If, at any time, the medication is needed for a period longer than three consecutive days, a new written authorization must be obtained from the person with prescriptive authority and also signed by the parents.

See the Parent Medication Letter in the Sample Forms Section

A completed medication authorization form may also be accepted as documentation to administer either acetaminophen or ibuprofen for use multiples times if the following information is provided:

- Signatures of healthcare provider with prescriptive authority and parent
- The order states a specific reason when the medication should be given.
- The exact form/concentration of the medication and the dose is listed.
- The date of the order and the date to administer the medication are within the time frame of the child's well child visit schedule (e.g. and order written for a 4 month old could be used until the child is 6 months old).
- For school age children medication orders should be renewed at a minimum yearly even though well child visits may be scheduled every two years.
- The medication may not be given for more than three consecutive days without additional authorization.

Remember: Acetaminophen and ibuprofen are the only medications that may be used multiple times with one authorization for up to three consecutive days ONLY. Other OTC medications can not be administered over time without additional authorizations.

If a child has a *chronic health condition*, such as asthma, that may require repeated or long term administration of prescription medications, clear written instructions or a health care plan are necessary to provide objective guidelines as to when the medication is to be provided. An example of an order might be administer asthma rescue medication if child coughs repeatedly or administer if the cough interferes with the child's ability to eat, sleep or play.

Topical preparations such as sunscreen, diaper creams and ointments do not require written authorization from the health care provider. They may be applied with parent written permission as a preventive measure. If the skin is broken, bleeding or a rash is present, discontinue use; inform the child's parent or guardian and request written instructions from the health care provider.

Parent Written Authorization gives permission for program staff to administer the medications. Emergency contact numbers should be included on the parent authorization form.

Medication in the Original Pharmacy Labeled Container

The pharmacy label must include:

- Child's name
- Person with prescriptive authority
- Issue date of prescription
- Name of medication
- Dosage
- Route of administration
- How often to give medication
- How many days to give medicine
- Special instructions and storage requirements
- Expiration date of the medication

Note: the pharmacy label is *not* the same as the prescription order. Compare the pharmacy label to the written authorization from the person with prescriptive authority for accuracy before giving the medication.

Over-the Counter Medicine Original Container

The container must include:

- Child's name
- Directions for safe use
- Expiration Date
- List of ingredients

REMEMBER

- **Never give medication without all written instructions and a properly labeled bottle.**
- **Never give medication if the written information does not match the labeled bottle.**
- **Contact the health care provider or RN consultant if you have any questions prior to giving the medication.**

Documentation

- The medication log is a legal document. It becomes a permanent record and provides legal protection to those administering medication as well as a safety check to assure that a child does not receive multiple doses of the medication.

Refer to the Sample Forms Section "Medication Log" or

- Complete a medication log for each child receiving medication.
- Complete a medication log for **each** medication.
  For example, if a child has 2 different inhalers for the management of asthma, complete 2 individual logs.

  Note: Complete a new log whenever there is a change in the child's medication or dosage.

refer to the program medication log.

Medication Log Directions

Complete the log as soon as the medication is received from the parent.
Attach a picture of the child to the medication log, whenever possible.

1. Complete the medication log ***in ink.*** This is a legal document.
2. Have another trained person review the completed log for accuracy.
3. **The medication log includes**:
   - Child's name
   - Name of medication
   - Date
   - Dosage
   - How the medication is to be given (route)
   - Time the medication needs to be given while in school/child care
   - Start date and end date
   - Special instructions or storage information
     - For "as needed" medications, be sure you include instructions, such as "every 4 hours as needed for repeated coughing or wheezing)"
   - "Comment" section
   - Signature line, including initials, for the person documenting each dose of the medication
4. Compare the information on the log with the medication label before the medication is given.
5. Document in ink immediately after the medication is given.
   - Date and Time the medication was given.
   - Initials of the person giving the medication. Initial only for the medications you administered.
   - If an error is made, draw a single line through the error and write the word "error". Record the right information, sign and date the corrected information. Initial the correction. ***Do not use an eraser or white out.***
6. The "Comment" section is used for special or unusual situations,
   e.g., medicine dropped on the floor, child refuses/vomits medicine, parent does not bring the medicine, or document the number of pills received
   Note "A" if a child is absent.
   Note "X", any dates the program is closed or not in session.
7. Write the date a medication has been discontinued on the log.
8. If a child does not receive his medicine, it is considered a medication incident. Circle the time the dose was to be given and write in the comment section: *medication not given and why and include your signature.*
   Complete a medication incident report.

Remember: IF IT IS NOT WRITTEN, IT DID NOT HAPPEN!

Note: File completed or discontinued medication logs in the child's file.
Health records such as medication logs, health care plans and other health-related information are kept in the child's permanent record.

Medication Incidents:

A medication incident is a mistake made by a health care provider, pharmacist, caregiver or parent during the process of prescribing, transcribing, dispensing, administering, or using a medication. Most medication incidents occur prior to the actual administration of medication. Common incidents include:

- Packaging and labeling: More than 50% of reports through the US Pharmacopoeia relate to similar labeling and packaging for two different products.
- Similar Names: There are many look alike and sound alike drug names.
- Medication Orders: Prescriber's illegible handwriting has resulted in misinterpretation and incorrect transcription of written medication orders.
- Abbreviations: Health care providers often use abbreviations for drug names and/or directions for use. While these abbreviations can save time, they can be misinterpreted.

Omission or forgetting to give a dose of medicine is the most common medication incident in schools and child care programs.

Refer to the Sample Forms Section for the "Medication Administration Policy" regarding medication incidents

Medication Incident: "a Violation of the "Five Rights"

A medication incident is any situation that involves any of the following:

- Forgetting to give a dose of medication
- Giving more than one dose of the medication
- Giving the medication at the wrong time
- Giving the wrong dose
- Giving the wrong medication
- Giving the medication to the wrong child
- Giving the medication by the wrong route
- Forgetting to document the medication

Note: Medication must be given within the time frame of 30 minutes before or 30 minutes after the prescribed time, more than that is considered an incident.

Refer to the Sample Forms Section for two examples of a "Medication Incident Report"
You may wish to use this sample form during Student Return Demonstrations.

Medication Incident Report

1. **CALL Poison Control immediately when a medication is given to the wrong child or if an overdose of medication is suspected.**
2. Document the medication incident on a *"Medication Incident Report" form*. The person responsible for the incident completes the report. If that is not possible, the person who discovered the incident completes the written report.
3. Record the incident and observations on the child's medication log. *Remember that the medication incident report is a record for the program and not intended for the child's permanent record. Program policy should specify where this form should be filed.*
4. **Report medication incident immediately** to the RN consultant or school nurse, child's health care provider, the parent and the program administrator, as appropriate.
5. Observe the child, record and report any changes.

Note to the RN Instructor: Different settings may use different terminology such as incidents, exceptions, or variance.
Medication errors and mistakes do happen. The RN should discuss with the student participants this reality and discourage "hiding" their mistakes. The relationship with the RN is key!

DO NOT INDUCE VOMITING
UNLESS INSTRUCTED BY POISON CONTROL.
POISON CONTROL NUMBER 1-800-222-1222

How to Help Prevent Medication Incidents

When a child requires medicine, school, child care and camp personnel become a part of the "drug therapy chain". We expect and trust that this chain assures the right medication has been prescribed, dispensed and administered by the physicians, pharmacists, nurses and other caregivers.

But when humans are involved, mistakes can happen. Anyone in this chain can make an error because of not doing the right thing or not knowing the correct thing to do. It is the nurses' and caregivers' responsibility to make sure it is understood what the medication is for, how it looks, and how it should be taken.

Triple check information about a medication every time a medication is given.

Refer to the Sample Forms Section for the "Medication Administration Onsite Checklist"
The delegating RN should conduct and document onsite medication review, at least annually. Discuss this with the student participants.

Medication Audits

Using some type of audit (review) process within the school or child care program can help identify problematic areas. Using the Medication Administration Onsite Checklist can provide a format for that review. Ideally audits for a program should occur at least 2 times during the year. It is a good way for the school nurse or child care health consultant delegating medications to provide meaningful ongoing supervision of the administration of medication.

Refer to the Field Trip Check List in the Forms Section

Field Trips

A medication-trained person should accompany children with medications on field trips. The term 'field trip', describes an activity or event which takes place during normal program hours at a location other than the usual program location. Medication administration during extra-curricular activities or overnight activities are not included in this training, but may be addressed by the nurse trainer using specific guidelines and policies.

The nurse must be actively involved in the decision making process when determining the level of health care that must be provided in any field trip. When delegation of medications is required, the nurse must be able to provide an adequate level of supervision and monitoring as required for nursing delegation.

The nurse should take into consideration:

- the length of the field trip
- the destination
- if there is adequate emergency response
- the health care needs of the group
- the ability to adequately supervise medication delegation including ability of the staff to contact the nurse with problems or questions
- the competency of the staff accompanying the students to provide the necessary health care

The nurse is responsible for determining a safe process for the administration of routine and emergency medications during a field trip. This process should include:

- The 'handing off' or the transfer of medications and associated documents from their usual storage place to portable storage for the field trip
- Secure and temperature appropriate storage during field trip
- Hand hygiene during field trip

- Appropriate documentation practices during the field trip
- The 'handing off' or the return of medications and associated documents from portable storage for the field trip to their usual storage place

The Colorado Board of Pharmacy has confirmed that if a nurse transfers or repackages medications brought in by the parents/guardians from one container to another for a field trip, the nurse is NOT considered to be dispensing medications and is therefore not violating the Pharmacy Practice Act.

Reference:
Phone call on 6/23/08 with Chris Gassen, Inspector of Pharmacy Practice, DORA, Denver, CO (303) 894-7887

EXTENDED SCHOOL TRIPS
School districts have a legal obligation to make certain that all school sponsored activities and programs are accessible to every student by providing necessary health services so that every student can safely participate. Denying a student the right to participate in extracurricular activities or field trips may discriminate against the student. Parents can be invited to accompany their child on the field trip, but the school district cannot require that a parent attend the trip as a condition of the student's participation. School districts should provide a competent staff person to safely provide for the students' health care needs. The school nurse is the only professional staff person who is qualified to make the decision regarding the qualifications necessary for the staff person who will be providing for the health needs of the students during the field trip.

Nurses delegating medication administration for extended school trips need to develop policy in accordance with the Colorado Nurse Practice Act and the school district.

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5 RIGHTS OF MEDICATION ADMINISTRATION

Topic & Instructional Strategies

This is a safety checklist to help reduce the chance of making a mistake in medication administration.

1. RIGHT CHILD - Protect Confidentiality

- Is this the right child? Double check, even if you think you know the child to whom you're giving the medication.
- Check the name on the medication label against the permission form.
- Confirm the child's identity with another person.
- Ask the child his name.
- Verify child's identity with the child's picture, if available.

2. RIGHT MEDICATION

- Medications must be given from a properly labeled original bottle.
- Compare the prescribing practitioner's written instructions to the pharmacy label and the medication log.
  Read the label three times
  - First when it is removed from the secured cabinet.
  - Second when the medicine is poured.
  - Third when returning the medication to the secured cabinet.

3. RIGHT DOSE

- Give the **exact amount** of medicine specified by the orders from the health care provider with prescriptive authority and the pharmacy label.
- Use standard measuring devices to assure proper dosage.
  DO NOT USE KITCHEN UTENSILS. These do not provide accurate measurements.

  Note: 1ml = 1cc
  5ml or 5cc = 1 teaspoon
  3.75 ml or 3.75 cc = ¾ teaspoon
  2.5ml or 2.5 cc = ½ teaspoon

4. RIGHT TIME

- Check with the parent the time when the medication was last given at home.
- Check the medication log for the time the medicine needs to be given.
- Check and see if the medicine has already been given for the current day.
- The medication must be given within the time frame of up to 30 minutes before or 30 minutes after the scheduled time.

5. RIGHT ROUTE

- Check the medication order and the pharmacy label for the route the medication is to be given (mouth, inhaled, ear drops, eye drops).

TRIPLE CHECK THESE FIVE Rs EACH AND EVERY TIME YOU GIVE MEDICATION.

DOCUMENTATION

- Document everything.
- Maintain a record of all medication administered to children.

Remember: IF IT IS NOT WRITTEN, IT DID NOT HAPPEN!

HOW TO ADMINISTER MEDICATION

Topic & Instructional Strategies

Handwashing

- **Always** wash your hands before and after giving any medication to a child.
- If the child will be touching the medication, he should also wash his hands.

Practice Standard (Universal) Precautions

Measuring Medications

- It is the parent's responsibility to provide the appropriate calibrated measuring device.
- A disposable container may be used, e.g., a paper cup.
- The school or center may use washable measuring utensils, e.g., medicine spoons or cups. These must be thoroughly washed in hot soapy water, rinsed and disinfected using a solution of 1 tablespoon of bleach to 1 gallon of water. Air dry.
- **DO NOT use a kitchen spoon for measuring.**

Refer to the Sample Forms Section for the "Handwashing Handout"

DO NOT UNDER ANY CIRCUMSTANCES, GIVE ONE CHILD'S MEDICINE TO ANOTHER CHILD.

How to Administer Oral and Topical Medication

Start with clean hands and clean equipment

Oral Medication

Student Return Demonstration

Document Competencies on the Medication Skills Check List

Changing the Medication Form

- Crushing or sprinkling can only be done with written authorization of the health care provider.
- If the child gags or has trouble swallowing the tablet, written instructions may be provided to crush the tablet. Use a pill crusher. Crushed medicine can be mixed with a teaspoon of soft food like applesauce or liquid. Clean the pill crusher after each use.
- Never mix medication in prepared baby bottles! This practice can affect the stability and effectiveness of the drug. and the baby may not finish the bottle.
- Mix the dose in a small amount (1-teaspoon) of food or drink; to be sure the child will swallow the entire dose at once.
- NOT ALL medications, however, should be mixed in water or juice. Contact the pharmacist for more information.

Pills / Tablets/ Capsules

An RN may choose to cut a scored tablet with a pill cutter.

- Pour medication into a medicine cup, the lid of the bottle or a small paper cup. A clean paper towel or other container will also work.
- Have the child wash his hands, before putting the medicine into his mouth.
- Give 6-8-ounces of water.
- Some children do not have the developmental skills to take their own pills or tablets. Put on disposable gloves to assist in this process.
- Never refer to medication as **"candy."**

Note: Tablets and capsules should be swallowed whole, unless otherwise noted. Chewable tablets must be chewed, not swallowed whole.

Liquids

- Use a calibrated medicine spoon or cup, syringe, or dropper to measure liquid medications.
- **Never** use household kitchen utensils to measure medications. These provide inaccurate doses.
- Pour medication from the side opposite the label so the label stays readable, if medication drips down the side of the bottle.

Medicine Spoon or Cup

- Read cup on a flat surface, at eye level for accuracy.
- Do not try to measure something for an infant or toddler with a small medicine cup. The amount will not be accurate.
- When using a calibrated spoon or syringe, pour or draw up medication to the appropriate line.

DO NOT OVER OR UNDER FILL.
IT IS IMPORTANT TO BE ACCURATE.

Dropper

- Droppers are included as part of the medicine bottle.
- For the correct dosage, only use the dropper that is included with the medicine bottle.
- Withdraw the correct dosage amount and squeeze the dropper, placing the medicine into the side of the child's mouth.

Syringe

- Pour a small amount of the medicine into a paper cup, or any small cup.
- Place the tip of the syringe into the liquid and pull back the plunger.
- Avoid air bubbles by keeping the tip below the level of the liquid. Draw up enough to equal dosage amount.
- Pour the remainder of the medicine back into the bottle.
- Helpful hint: A syringe adapter is a device that fits on the medicine bottle. This is an easy way to draw the amount from the bottle with a syringe without having to pour it into a cup.
- Slowly squirt very small amounts (0.2-0.5cc) toward the back and sides of the child's mouth. If it is too far in front, their tongue can maneuver to spit it out. Do not squirt onto the back of the throat, this will cause gagging.
- For an infant: drop into a nipple for them to suck. Always follow with a bottle. NEVER mix medications with an entire bottle. Whatever is mixed must be ingested.
- Hold infants in the cradle position to administer oral medication. Allow toddlers to sit up in a high chair.

Note: Medication may be prescribed in teaspoons, ccs, or mls.
Check carefully for the appropriate line measurement on the cup or syringe or dropper. 1cc = 1ml 5cc or 5 ml = 1 tsp.

Make sure the child takes all medication.

Refusal or Vomiting of Medication

- If the child does not take all of the medication, spits part of it out, vomits or refuses to take part of the medication, **do not give another dose**.
- Contact the child's parent or guardian immediately and request further instructions from the health care provider.

Topical Medications

- Wear gloves when applying topical medications. After use, dispose of them and any contaminated dressings in a plastic lined covered container.
- Keep topical medications separate from oral medications. A small separate container with a lid can be used to separate all topical mediations. Label container carefully.
- Read instructions carefully to avoid mixing up eye and ear drops.

Eye Drops

- Rub the medicine bottle between the palms of your hand to warm the drops. Check the label to see if drops need to be shaken.
- Clean child's eye by wiping each eye once from the inside to the outside. Use a clean tissue for each eye.
- If younger than five, place child on her back, you may need assistance.
- If older than five the child may be seated.
- Ask child to look up. Gently open eye; pull down the lower lid to make a pocket.
- Bring the medicine toward the eye outside the child's field of vision.
- Do not touch the eye or anything else with the bottle or dropper.
- With bottle no more than an inch above the eye, drop one drop into the pocket of the lower lid.
- Close the eye Apply pressure on inside corner of eye for 10-20 seconds.
- Wipe away any excess medication or tearing with clean tissue.

Eye Ointments (*Follow instructions for Eye Drops)*

- Apply along the inside of lower eyelid. Do not touch tip of tube to the eye.
- Rotate the tube when you reach the edge of the outer eye, this will help detach the ointment from the tube.
- After applying, hold the eye open for a few seconds, then have the child keep it closed for about 1 minute.
- Wipe away any excess medication or tearing with clean tissue.
- Some instructions may direct you to apply the ointment to the closed eye on the lids and then massage the eyelids lightly.

Ear Drops

- Rub medication bottle between the palms of your hand to help warm drops, if they have been refrigerated.
- Have the child lie down with affected ear facing up. If the child is younger than five, you may need assistance.
- For a child younger than three, hold ear lobe and pull down and back.
- For a child older than three, hold upper part of ear and pull up and back.
- A child older than five may sit in a chair and tilt head with ear facing up.
- Clean outer ear with cotton and discard.
- Note: If you see blood or pus do not administer the medication. Notify the RN and parent.
- Drop medicine on the side of ear canal. Do not touch the dropper to the ear.
- Have child stay on his side for several minutes.
- Place a dampened cotton ball loosely in the ear canal, if indicated.

NEVER INSERT Q-TIPS OR COTTON BALLS INTO THE EAR CANAL!

Skin Creams/ Ointments/Patches ▪ Apply cream or ointment with an applicator to affected area. Use a small amount to cover the area and rub onto the skin. ▪ If instructions state to cover the affected area, then place the medicine on the dressing, then cover the area with the dressing. ▪ Skin patches are applied at home. If the patch falls off while the child is in school/child care, contact the RN and parent. **New application techniques and devices may be introduced. Carefully follow label instructions when applying any type of topical medication. Contact a pharmacist or your school nurse or nurse consultant if you have any questions about application instructions.**	

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Guidelines for Medication Administration:

An Instructional Program for

Training Unlicensed Personnel to Give Medications in Out-of-Home Child Care, Schools and Camp Settings

Severe Allergy Module

2008
First Edition

Funding resource provided by the Department of Human Services, Division of Child Care and the
Health Systems Development in Child Care Grant Healthy Child Care Colorado Initiative (#5 H24 MC 00021-05)

Severe Allergy Module

The Severe Allergy Module should be a part of every medication administration training. This section of the curriculum can be completed in about 10-20 minutes depending on whether or not a video is included. The return demo for the trainees will take additional training time. If this module is part of a complete medication administration training there are sections that may be omitted, e.g. Self-Carry, Documentation as they are covered in the main training.

This module has been separated from the remainder of the medication administration training manual so, if necessary, can be utilized as a separate training module to train staff that will only provide these emergency medications to children identified with severe allergies with individualized health care plans.

If the module is used in this way, the instructor should provide a copy of the student manual to the trainee for ongoing reference. It is also important to include a review of the completed health care plan/s for the child/ren that the staff is being trained for. In addition, staff will want to examine the medications provided for the children to ensure medications are current and being stored in a manner that is safe for the medications, accessible to properly trained staff, and yet inaccessible to children.

This module includes training for oral antihistamines and the Epi-Pen® auto injector only. Different devices/products are not part of this standardized curriculum.

Objectives for the Severe Allergy Module:

- Recognize common causes, symptoms and treatment for severe allergic reactions
- Describe proper care and storage of severe allergy medications
- Review template for severe allergy health care plan
- Demonstrate the correct technique for administration and disposal of the Epi-Pen®
- Acknowledge need to contact 911 any time an Epi-Pen® is given

In addition to the above objectives if this is a training/delegation for a specific child or group of children with individualized health care plans the students must also:

- Identify specific interventions required for the individualized health care plan including: specific allergy, child specific symptoms, medications and correct dosages, emergency contact information.
- Demonstrate the proper technique for providing an oral dose of antihistamine (if not taking the complete training or has not previously taken the entire medication administration training)

Severe Allergy Management/Delegation in School and Child Care Instructional Program
RN Instructor Guide

CONTENT	Type of Activity	Materials	Time
Introduction Describe delegation of severe allergy management and responsibilities of delegate	**Lecture**	Severe Allergy Delegation Record/Procedure Guidelines (several delegatees/one child) Severe Allergy Delegation Record/Procedure Guidelines (several delegatees/ several children)	3 minutes
What is Anaphylaxis?	Lecture	Anaphylaxis Handout	3 minutes
Health Care Plan Must have HCP & Parent authorization	Guided Review	Specific for each student reviewed	
Mild symptoms Accompany to office Administer Benadryl® Send home with parent for observation	Lecture	Anaphylaxis Handout Specifics in HCP	1-2 minutes
Life Threatening Symptoms Administer epinephrine Lie down- Stay down Call 911 Notify parents	Lecture	Anaphylaxis Handout Specifics in HCP	2 minutes
Second dose When to administer EMS support for 2nd dose varies according to agency	Facilitated Discussion	Specifics in HCP	1 minute
Epi-pen® Care and Storage Including field trips or extracurricular activities Room temperature – may need to insulate from heat or cold on field trips Disposal	Lecture	Negotiate program specific locations	3minutes
Food Allergy Precautions	Guided Review	District/Agency specific protocols	1 minute
Environmental Allergy Precautions	Guided Review	District/Agency specific protocols	1 minute
Documentation/Medication Log	Guided Review	District/Agency specific protocols	1 minute
Self- Carry - Rights and Responsibilities	Guided Review	Contract or District/Agency specific	1 minute
Epi-pen® administration 5 steps noted in health care plan and on side of injector	Return demo	Specifics in HCP and on Epi-Pen®	Varies
Standard (Universal) Precautions -Sharps Disposal One handed return to redesigned Epi-pen® tubes	Return demo of 1 handed return to storage tube	Rx specific disposal or sharps container	Varies
Health care plan for each student Sample Medication Log Self carry contract for each student, if applicable Severe Allergy Delegation Record/Procedure Guidelines Anaphylaxis Hand out AV resources (Optional) Dey Laboratories Epi-Pen® Video It Only Takes One Bite Video			8-10 minutes

SEVERE ALLERGIC REACTION OR ANAPHYLAXIS	**Topic & Instructional Strategies**
Anaphylaxis is a rapid, severe allergic reaction. Anaphylaxis occurs when the body overreacts to an allergen to which the person has been previously exposed. The body responds by developing antibodies to fight the foreign substance in the body. The antibodies cause cells to release chemicals that cause the severe allergic symptoms.	***Refer to the Anaphylaxis Handout in the Instructor Appendix of this module***
Common Causes ♦ Insect stings (bees, wasps, hornets, yellow jackets and fire ants) ♦ Foods, including nuts, milk, eggs, shellfish, fruits, etc. ♦ Medications, including antibiotics, aspirin, etc. ♦ Latex ♦ In some situations the cause of anaphylaxis is unknown.	
Mild symptoms include a runny nose, a few hives and itching. **Initial symptoms** may appear within seconds or up to 2-4 hours after exposure. Antihistamines are useful in the treatment of minor symptoms after exposure to an allergen. The most common antihistamine used for these symptoms is diphenhydramine or Benadryl®.	***Be sure to discuss the difference between mild symptoms requiring an antihistamine and the need for the Epi-Pen® in a severe allergic reaction or anaphylaxis***
Symptoms of a Severe Allergic Reaction or Anaphylaxis ♦ Hives spreading over the body ♦ Wheezing, difficulty swallowing or breathing ♦ Flushing; swelling of the lips, face/neck/tongue, throat, hands and feet ♦ Tingling and swelling of the tongue ♦ Nausea, vomiting and abdominal cramps ♦ Signs of shock (extreme paleness/grey color, clammy skin) ♦ Loss of consciousness **Reminder: If any of the above symptoms of severe allergic reaction appear in a child or adult that has not been previously identified as having an allergy, treat this as a medical emergency and call EMS at 911**	
Emergency Treatment –Remember to practice Standard (Universal) Precautions Anaphylaxis is a life threatening reaction that requires immediate attention. ♦ Epi-Pen® or Epi-Pen Jr. ® is used for emergency treatment of anaphylaxis. ♦ The Epi-Pen® is prescribed for the child with a history of severe allergic reaction (anaphylaxis). The child's parent/guardian provides the Epi-Pen®. ♦ Anyone experiencing an anaphylactic reaction should lie down and stay down. Position changes can cause cardiac arrest ♦ **Immediately call the emergency response team (911), when the Epi-Pen® is administered.** Symptoms usually improve quickly after epinephrine is given. However, the effects are short lived and may require additional doses.	***Refer to the Forms Section of this module for the "Severe Allergy Health Care Plan" This plan contains the step by step instructions® for the administration of the Epi-Pen®***
Recent research has shown that many people need a second dose of epinephrine before EMS arrives. A care plan is available to identify the need for and when to administer a second dose. Be sure to provide clear instructions to students about when the second dose is required on each specific care plan. EMS support of administration of the second dose of epinephrine may vary according to agency. Accompany the child to the hospital, if the parent/guardian is unavailable. Bring to the hospital: child's health care plan & emergency contact information. Give the Epi-Pen® that was administered to the Emergency Response Team, for proper disposal.	***"Severe Allergy Health Care Plan with second Epi-Pen® dose." This plan contains step by step instructions for the administration of the Epi-Pen®***

Care and Storage:

- Keep the Epi-Pen® at room temperature. Do not refrigerate.
- Emergency medications should be stored in the original container, in a clean storage area inaccessible to children. The decision to lock these medications should be made according to center policy in consultation with the nurse consultant taking into consideration that these medications MUST be IMMEDIATELY available to trained personnel at all times the children are present in the program.
- Transport in an insulated fanny pack or secured cooler for a field trip/outing.
- Do not expose to extreme heat or direct sunlight, e.g., bus or car glove compartment.
- Plan for storage of required medications and care plans during field trips
- A new Epi-Pen® should be good for 12-15 months. Check the expiration date. Contact your local pharmacy regarding disposal of an expired Epi-Pen®
- Return used Epi-Pen® to the tube using a one handed return

Remember to practice Standard Precautions and provide safe disposal of the sharp needle. Use a one handed return to return the used Epi-Pen® to the tube. Give the used Epi-Pen® to the EMS for proper disposal.

Commercial storage option:

Safety Sack is a clear nylon standup pouch designed to hold medication for the treatment of a severe allergic reaction or severe asthma attack.

www.safetysack.com

Disposal of Unused Epi-Pens® :

An unused/expired Epi-Pen® should ideally be returned to the child's parent for disposal. Child care or school staff can return the unused device to the prescribing pharmacy for disposal, or in some communities the device may be taken to a local health department. Please call ahead to ensure that the location will dispose of the device for you. There is also information about safe disposal of these devices on the following web sites:
www.safeneedledisposal.org
www.cdc.gov/needledisposal/

For more information on avoiding contact or exposure to allergens, Contact the Food & Allergy Network 1-800-929-4040 or www.foodallergy.org

Prevention:

The best treatment for anaphylaxis is prevention by avoiding substances and situations that are known to trigger extreme or even mild allergic reactions.

Documentation

- The medication log is a legal document. It becomes a permanent record and provides legal protection to those administering medication as well as a safety check to assure that a child does not receive multiple doses of the medication.
- Complete a medication log for each child receiving medication.
- Complete a medication log for **each** medication.
  For example, if a child has 2 different inhalers for the management of asthma, complete 2 individual logs.

  Note: Complete a new log whenever there is a change in the child's medication or dosage.

Refer to the forms section of this module for a sample "Medication Log."

Medication Log Directions

Complete the log as soon as the medication is received from the parent.
Attach a picture of the child to the medication log, whenever possible.

9. Complete the medication log ***in ink.*** This is a legal document.
10. Have another trained person review the completed log for accuracy.
11. The medication log includes:
    - Child's name
    - Name of medication
    - Date
    - Dosage
    - How the medication is to be given (route)
    - Time the medication needs to be given while in school/child care

- Start date and end date
- Special instructions or storage information
  - For "as needed" medications, be sure you include instructions, such as "every 4 hours as needed for repeated coughing or wheezing)"
- "Comment" section
- Signature line, including initials, for the person documenting each dose of the medication

12. Compare the information on the log with the medication label before the medication is given.
13. Document in ink immediately after the medication is given.
    - Date and Time the medication was given.
    - Initials of the person giving the medication. Initial only for the medications you administered.
    - If an error is made, draw a single line through the error and write the word "error". Record the right information, sign and date the corrected information. Initial the correction. ***Do not use an eraser or white out.***
14. The "Comment" section is used for special or unusual situations, *e.g., medicine dropped on the floor, child refuses/vomits medicine, parent does not bring the medicine, or document the number of pills received*
    Note "A" if a child is absent.
    Note "X", any dates the program is closed or not in session.
15. Write the date a medication has been discontinued on the log.

Self-Carry – Rights and Responsibilities:

According to state law (C.R.S. 05-156) n Colorado, children may be allowed to self carry asthma and anaphylaxis medications in school as well as some group care settings. Self administration in these settings refers to situations in which students carry their medication on their person and administer the medication to themselves. There are orders from their healthcare provider, authorization from their parent, and the administration is done in accordance with school district or program policy. Typically this medication is not handled by school or child care personnel nor stored in the program's medication storage area.

According to Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines a variety of "factors should be assessed *by the school nurse* in determining when a student should self carry and self-administer life-saving medications." These factors include, but are not limited to:

Student Factors:
- Desire to carry and self administer
- Appropriate age, maturity and/or developmental level
- Ability to use correct technique in administering the medication
- Willingness to comply with school/program rules about the use of the medication while in the setting

Parent/Guardian Factors:
- Desire for student to self carry and self-administer
- Awareness of program policies and parent responsibilities
- Commitment to ensuring that the child has the medication, medications are refilled when needed, medications are not expired
- Provision of back-up medication for emergencies.

School/Program Factors:
- Availability of trained staff while children are in the program setting
- Availability of trained staff in case of loss or inability to administer medication
- Ability to disseminate information about medication use to all staff who need to know
- Communication system to contact appropriate staff in case of a medical emergency
- Opportunity for school nurse to assess child's status and technique
- Availability of the school nurse to provide oversight and support

If applicable, review the "Contract for Students…" form in the Form Section of this module.

Colorado Self Carry Guidelines available in the Asthma Module Appendix Section

Open communication is the key and this communication should include healthcare providers, families, and school personnel especially the school nurse. In addition, a contract with all students who self carry is recommended so that the proper safeguards can be in place.

References:

Hootman, J., Schwab, N., Gelfman, M.H.B., Gregory, E., and Pohlman, K., (2001). School Nursing Practice: Clinical Performance. In N. Schwab and M Glefman (Eds.), *Legal issues in school health services*. North Branch, MN: Sunrise River Press.

Documentation of Student Training and Delegation:

- If this training is part of the complete medication administration training, documentation of competency can be shown on the "Medication Skills Check List" that is part of the Forms section in the main curriculum.
- If this training is being offered for individuals not trained in the complete curriculum, documentation of training and delegation for specific children with severe allergy care plans can be done by using one of two Training and Delegation/Procedure Guidelines forms in the Forms section of this module.
- The first form documents training and delegation for several staff on the care plan of one specific child.
- The second documents training and delegation for several staff and several children that each has an individualized health care plan.

School or child care personnel who are not medication trained may receive individualized Epi-Pen® training with one-to-one delegation provided there is ongoing RN supervision. Review each completed health care plan and document using the appropriate Severe Allergy Delegation Record/Procedure guidelines form in the Form section of this module.

References

American Academy of Allergy, Asthma and Immunology (n.d.) *School Nurse Tool Kit* Available at: http://www.aaaai.org/members/allied_health/tool_kit/

Dey Laboratories at http://www.Epi-Pen.com/howtouse.aspx

Food Allergy and Anaphylaxis Network at www.foodallergy.org

Korenblat, P. (2006). Lie down, stay down during anaphylactic shock, allergists say. *School Health Professional, 12(1).*

Student Return Demonstration:

Benadryl® dose demonstration (if student is not taking the complete Medication Administration Training).

Epi-Pen® trainer Return demo of one handed return to new Epi-Pen® tubes

Guidelines for Medication Administration:

An Instructional Program for

Training Unlicensed Personnel to Give Medications in Out-of-Home Child Care, Schools and Camp Settings

Asthma/Inhaled Medications Module

2008
First Edition

Funding resource provided by the Department of Human Services, Division of Child Care and the
Health Systems Development in Child Care Grant Healthy Child Care Colorado Initiative (#5 H24 MC 00021-05)

Asthma/Inhaled Medications Module

The Asthma Module should be a part of **every** medication administration training. If used as a part of the complete training there will be sections such as documentation and self-carry information that is part of the main manual and may be skipped when doing this module since the information will have been covered. This section of the curriculum can be completed in about 10-20 minutes. The return demo for the trainees will take additional training time.

This module has been separated from the remainder of the medication administration training manual so, if necessary, it can be utilized as a separate training module to train staff that will only provide the medications required for children identified with asthma or the need for inhaled medications with individualized health care plans.

If the module is used in this way, the instructor should provide a copy of the student manual to the trainee to be used as a reference. It is also important to include a review of the completed health care plan/s for the child/ren that the staff is being trained to care for. In addition, staff will want to examine the medications provided for the child/ren to ensure medications are current and being stored in a manner that is safe for the medications, accessible to properly trained staff, and yet inaccessible to children.

This module includes training for a variety of delivery methods for inhaled medications, including metered dose inhalers and nebulizers.

Objectives for the Asthma Module:

- Recognize common causes, symptoms and treatment for asthma
- Describe proper care and storage of asthma medications
- Review template for asthma care plan
- Demonstrate the correct technique for administration of inhaled medications
- Acknowledge when emergency care may be required for children suffering from an acute asthma episode

In addition to the above objectives if this is a training/delegation for a specific child or group of children with individualized health care plans the students must also:

- Identify specific interventions required for the individualized health care plan including: child specific triggers, medications and correct dosages, emergency contact information.
- Demonstrate the proper technique for providing medications via a metered dose inhaler, nebulizer or other inhaled medication delivery system if the information has not been covered in another part of this training.

The information in the instructor and student section of the curriculum was revised and updated by members of the Colorado Asthma Coalition,

Diane Herrick, RRT, The Children's Hospital
Cindy Martin, RN, AE-C, Kaiser Permanente

The document was further reviewed and updated by,

Shari Fessler, RN, The Children's Hospital
Katie Bernard, RN, Aurora Public Schools

Special thanks to all of the above for their time and their willingness to assist with the revisions.

Asthma Management/Inhaled Medication Delegation in School and Child Care
Instructional Module
RN Instructor Guide

CONTENT	Type of Activity	Materials	Time
Introduction Describe delegation of asthma management plan and responsibilities of delegatee		Asthma Delegation Record/Procedure Guidelines if doing this module as a separate training and not part of the complete medication administration training curriculum	2 minutes
What is Asthma? **Early Warning Signs/Asthma Triggers**	Lecture		3-5 minutes
Asthma Health Care Plan Must have HCP & Parent authorization	Guided Review	Review sample plans and/or child specific for each student	1-2 minutes, longer if reviewing child specific plans
Medications for Asthma Management Types of Medications Care and Storage of Inhaled Medications Disposal of Inhaled Medications Documentation of Administration Medication Incident Report	Lecture	Specifics in HCP	3-4 minutes
Administering Asthma Medications Metered Dose Inhaler Nebulizer	Guided Review Return Demo	Nebulizer Tx Permission Nebulizer Tx Procedure Nebulizer Tx Log	
Self-Carry – Rights and Responsibilities Contract District or agency specific	Guided Review	Colorado School Children's Asthma and Anaphylaxis Health Management Act guidelines Sample Contract	3 minutes
Steps to Follow during an Asthma Episode	Facilitated Discussion	Sample Health Care plans, Child specific HCP	2 minutes
Other Inhaled Medications	Lecture		2 minutes
Document Training and Delegation	Guided Review	Appropriate Inhaled Medication Delegation Record/Procedure Guidelines	
Resources	Guided Review	Asthma Web Resources	2 minutes
Health care plan for each student Self carry contract for each student, if applicable Delegation Record/Procedure Guidelines AV resources (Optional) http://www.lungcolorado.org/Asthma_ResourceBox.htm			

ASTHMA

Topic & Instructional Strategies

Asthma is a chronic lung condition characterized by ongoing inflammation of the airways or bronchial tubes. The inflammation of asthma causes the lining of the airways to swell and produce more mucus. The airways then narrow and obstruct the flow of air out of the lungs.

Asthma is the most common childhood chronic disease, and is a leading cause of hospitalizations and missed school days. Asthma signs and symptoms can range from mild to severe and can vary from episode to episode. Severity can depend on how well asthma is managed by medications and exposure to irritants. While there is no cure and children do not outgrow asthma, this chronic disease is controllable with effective use of anti-inflammatory medicines. (www.lungusa.org)

*Review all materials in the sample form section and the appendix section of this module. Distribute the most appropriate handouts to the student participants. * Know your audience."*

See "Asthma Web Resources" in the Appendix section of this module for a wide variety of available resources

Early Warning Signs

Often a person will have early warning signs that they are beginning to have difficulty breathing. These warning signs are different for each person and may include:

- **Watery eyes**
- **Stuffy or runny nose**
- **Itchy throat or chin**
- **Funny feeling in chest**
- **Feeling anxious**
- **Fatigue**
- **Headache**
- **Dark circles under the eye**
- **Behavioral changes**

Refer to Sample Forms Section for the several different versions of Asthma and Respiratory Health Care Plans.

Asthma Triggers

When airways are sensitive, asthma symptoms develop or become worse when exposed to certain triggers. The most common triggers are:

- **Exercise**
- **Colds/illness**
- **Allergies**: pollens, animal dander, molds, dust
- **Weather changes**: humidity, barometric pressure, and temperature
- **Irritants**: pollution, dust, strong odors, perfumes
- **Emotions**: anxiety, excitement, laughing

Asthma Health Care Plan

Always treat the following symptoms according to the child's health care plan:

- Coughing (continual)
- Shortness of breath
- Rapid and difficult breathing
- Tightness in the chest
- Wheezing

Student participants should practice counting "breathing rates"

Normal Respiratory Rates in Infants and Young Children

- 30-60 breaths/minute for a newborn
- 20-40 breaths/minute for an infant < one year
- 18-30 breaths/minute for a toddler
- 16-25 breaths/minute for a school age child

Recognizing asthma symptoms in an infant or toddler may require more careful observations. Identification of these symptoms is important so that early treatment can be started. This information should be included in the infant or toddler's health care plan. The following symptoms can indicate a worsening and possibly serious asthma episode:

- Noisy breathing or breathing rate increased 50% above normal. For example, a toddler engaged in a quiet activity with a breathing rate of 45.
- Wheezing or panting with normal activities
- Lethargy, disinterest in normal or favorite activities
- Difficulty sucking or eating
- Crying sounds softer, different

Important note: School or child care personnel may not use nursing judgment. They may only report and record their observations, document pulse, respiration and temperature. A physical assessment, such as the use of a stethoscope is the responsibility of the trained health professional.

Medications for Asthma Management

Quick Relief **(Bronchodilators)**

- Short-acting medications, commonly used as a quick relief of symptoms
- Act quickly to open constricted airways, relaxing smooth bronchial muscles
- Improvement is usually seen within 5-10 minutes
- Given by metered-dose or dry-powder inhaler or nebulizer
- Most effective when used with anti-inflammatory medications

Quick relief inhalers (bronchodilators) have traditionally used CFCs (chlorofluorocarbons) to propel the medication into the lungs. Although CFCs are safe to inhale, they are harmful to the environment and are being phased out to help protect the ozone layer. The FDA is requiring that manufacturers of these inhalers use HFA (hydrofluoroalkane) in place of CFCs to propel the medicine out of the inhaler, in an effort to protect the environment. No CFC inhalers will be sold after December 31, 2008.

With the transition to HFA propelled inhalers, it is important to note the following:

- HFA inhalers may taste and feel different than the CFC inhalers. Notably, the force of the spray of an HFA propelled inhaler may feel softer than that of a CFC propelled inhaler.

- The HFA actuator must be cleaned under warm running water once a week; if it is not kept clean, it can become clogged and the albuterol will not be delivered to the lungs. Each HFA inhaler has different cleaning and drying instructions. Therefore, it is important to read and understand the instructions that come with each of the HFA inhalers before using.

- The HFA inhaler needs to be "primed" before initial use. Each time a patient receives a new HFA inhaler, he/she should press down at least 3 to 4 times to prime the device. Each HFA propelled inhaler has different priming instructions. Therefore, it is important to read and understand the instructions that come with each of the HFA inhalers before using.

- Reassure patients of the drug's effectiveness, even though the spray may taste different or not feel as strong as that from a CFC inhaler.

Additional information, including a podcast, consumer article, and public service announcement can be found on FDA's website at http://www.fda.gov/cder/mdi/albuterol.htm. To learn more about the transition and get answers to many frequently asked questions, visit the Environmental Protection Agency (EPA) website at http://www.epa.gov/ozone/title6/exemptions/inhalers.html.

Reference: Letter from the Department of Human Services FDA, dated June 19, 2008

HFA Inhalers vs. CFC Inhalers

Similarities	How HFA is Different
Safe and effective for asthma	Ozone friendly to the environment
Shape is similar	May be slightly different in smell & taste
Size is similar	Mist is less forceful and warmer
Convenient to use	May need to be cleaned and cared for differently

http://www.breatherville.org/pdf/HFA_side_by_side.pdf

Common Medicines

- Ventolin® HFA, Proventil® HFA, ProAir™ HFA (albuterol sulfate)
- Xopenex® HFA (levalbuterol)
- Tornalate® (bitolterol mesylate)
- Combivent®, DuoNeb® (ipratropium bromide plus albuterol)
- Alupent®, Metaprel® (metaproterenol sulfate)
- Maxair® (pirbuterol acetate)

Common Side Effects*: fast heart rate, muscle tremors, and shakiness*

Long-term Controllers

Anti-inflammatories

- Most effective asthma control treatment
- Take daily to gain and maintain "control" of persistent asthma
- DO NOT take for quick relief of acute symptoms
- Reduce inflammation leading to reduced symptoms

Common Medications

- QVAR® (beclomethasone dipropionate)
- Pulmicort® (budesonide)
- AeroBid® (flunisolide)
- Flovent® (fluticasone propionate)
- Advair® (fluticasone propionate and salmeterol)
- Azmacort® (triamcinolone acetonide)
- Asmanex® (mometasone furoate)

Common side effects*: horseness, oral thrush, headache.*

Other Anti-inflammatories

- Helps prevent asthma symptoms caused by exercise
- Blocks asthma response to triggers
- Often used with inhaled corticosteroids

Common Medicines

- Intal® (cromolyn)
- Accolate® (zafirlukast)
- Singulair® (montelukast sodium)

Common side effects*: rare with Intal, but has unpleasant taste; oral medications may cause headache, dizziness or nausea.*

Long- Acting Bronchodilators

- Relaxes muscles that tighten around airways
- Helps inhaled corticosteroids work better without increasing dose.
- Should be used with inhaled corticosteroid treatment to prevent adverse risks to severe asthma attacks.
- Should not be used as a quick relief medication.

Short-term/Anti-inflammatory Drugs

- Swallowed corticosteroid
- Used only for asthma flare-ups
- Usually prescribed for 3-10 days

Common Medicines

- Deltasone®, Liquid Pred® (prednisone)
- Prelone ®, Pediapred l®, Orapred (prednisolone sodium phospate)
- Medrol® (methylprednisolone)

Common side effects*: increase of appetite, weight gain, nausea, vomiting, insomnia, irritability.*

Care and Storage of Inhaled Medications

- Keep the medications at room temperature
- Store these medications in the original container, in a clean storage area inaccessible to children
- The decision to lock these medications should be made according to center policy in consultation with the nurse consultant taking into consideration that these medications MUST be IMMEDIATELY available to staff trained and delegated the use of the medications for children in their care
- Check expiration dates often and provide parents time to obtain a prescription renewal
- Return expired inhalers or other expired inhaled medications to the parents for disposal

Disposal of Inhaled Medications

Try to give all expired or unused medications to parents for disposal, but if you must dispose of them, follow the procedure below:

- Make sure the inhaler is empty, if not; you should go to a well ventilated area (outside) and dispel what's left inside. Double wrap in a bag or newspaper, place in regular trash.
- Be sure the trash containing the disposed medications is out of reach of children

Documentation of Inhaled Medications

- The medication log is a legal document. It becomes a permanent record and provides legal protection to those administering medication as well as a safety check to assure that a child does not receive multiple doses of the medication.
- Complete a medication log for each child receiving medication.
- Complete a medication log for **each** medication.
  For example, if a child has 2 different inhalers for the management of asthma, complete 2 individual logs.

  Note: Complete a new log whenever there is a change in the child's medication or dosage.

Medication Log Directions

Complete the log as soon as the medication is received from the parent.
Attach a picture of the child to the medication log, whenever possible.

16. Complete the medication log ***in ink.*** This is a legal document.
17. Have another trained person review the completed log for accuracy.
18. **The medication log includes**:
    - Child's name
    - Name of medication
    - Date
    - Dosage

Refer to the Sample Forms Section for the

- How the medication is to be given (route)
- Time the medication needs to be given while in school/child care
- Start date and end date
- Special instructions or storage information
  - For "as needed" medications, be sure you include instructions, such as "every 4 hours as needed for repeated coughing or wheezing)"
- "Comment" section
- Signature line, including initials, for the person documenting each dose of the medication

19. Compare the information on the log with the medication label before the medication is given.
20. Document in ink <u>immediately</u> after the medication is given.
    - <u>Date</u> and <u>Time</u> the medication was given.
    - <u>Initials</u> of the person giving the medication. Initial only for the medications you administered.
    - <u>If an error is made, draw a single line through the error and write the word "error". Record the right information, sign and date the corrected information.</u> Initial the correction. ***Do not use an eraser or white out.***
21. The "Comment" section is used for special or unusual situations, *e.g., medicine dropped on the floor, child refuses/vomits medicine, parent does not bring the medicine, or document the number of pills received*
    Note "A" if a child is absent.
    Note "X", any dates the program is closed or not in session.
22. Write the date a medication has been discontinued on the log.
23. <u>If a child does not receive his medicine</u>, it is considered a medication incident. <u>Circle</u> the time the dose was to be given and <u>write</u> in the comment section: *medication not given and why and include your signature.*
    Complete a medication incident report.

"Medication Incident Report"

Refer to the "Sample Forms" section of this module for sample Delegation Record and Procedure Guidelines for an Inhaler

Remember: IF IT IS NOT WRITTEN, IT DID NOT HAPPEN!

<u>Note:</u> File completed or discontinued medication logs in the child's file. Health records such as medication logs, health care plans and other health-related information are kept in the child's permanent record.

<u>Medication Incident: "a Violation of the "Five Rights"</u>

A medication incident is any situation that involves any of the following:

- Forgetting to give a dose of medication.
- Giving more than one dose of the medication.
- Giving the medication at the wrong time.
- Giving the wrong dose.
- Giving the wrong medication.
- Giving the medication to the wrong child.
- Giving the medication by the wrong route.
- Forgetting to document the medication.

Discuss the differences in spacers, e.g., mask and mouthpieces

<u>Note:</u> Medication must be given within the time frame of 30 minutes before or 30 minutes after the prescribed time, more than that is considered an incident.

<u>Medication Incident Report</u>

1. **<u>CALL Poison Control immediately</u> when a medication is given to the wrong child or if an overdose of medication is suspected.**
2. Document the medication incident on a *"Medication Incident Report" form*. The person responsible for the incident completes the report. If that is not possible, the person who discovered the incident completes the written report.

If there are other

3. Record the incident and observations on the child's medication log.
   Remember that the medication incident report is a record for the program and not intended for the child's permanent record. Program policy should specify where this form should be filed.
   a) **Report medication incident immediately** to the RN consultant or school nurse, child's health care provider, the parent and the program administrator, as appropriate.
   b) Observe the child, record and report any changes.

DO NOT INDUCE VOMITING
UNLESS INSTRUCTED BY POISON CONTROL.
POISON CONTROL NUMBER 1-800-222-1222

Administering Asthma Medications

Asthma medications are prescribed for long term use and their use may change when a child has an exacerbation or severe asthma episode. Always wash hands before and after giving any medications to a child.
Note: The school-aged child in a school or child care program may carry their inhaler, based on the recommendation of the health care provider, parent request and the RN assessment.

How to Use a Metered-Dose Inhaler

1. Check the written orders from the health care provider.
2. Check for written permission from the child's parent /guardian to administer the medication at school/child care.
   Be sure to know the last time the medication was given by the parent.
3. Remove the cap and hold inhaler upright.
4. Shake the inhaler. (Note: at least four (4) shakes.)
5. Tilt the head back slightly and ask child to breathe out.
6. Position the inhaler in one of the following ways:
   - Open mouth with inhaler 1 ½ -2 inches away (2-3 three fingers width)
     - OR
   - Use a spacer, This is recommended by most health care providers,
   - Types of Spacers:
   - Aerochamber or Optichamber– hard, plastic cylinder
   - Inspirease or E-Z spacer – soft, plastic, collapsing bag
7. Press down once on inhaler to release medication as the child starts to breathe in slowly (3-5 seconds).
   Note: If the spacer "whistles" or "hums" the inhalation was too fast.
8. *Hold* breath for 10 seconds to allow medicine to reach deeply into lungs. (young children may have difficulty with the full 10 sec)
9. Repeat puffs as directed. WAIT 1-2 MINUTES BETWEEN PUFFS.
10. If using inhaled steroids, rinse mouth with water after use. Note: This removes any "bad taste" and prevents the growth of thrush in the mouth
11. HFA inhalers require "priming sprays" if using new canister. Priming sprays are also recommended if inhaler has not been used for 2 weeks. See specific manufacturer recommendations.
12. The mouthpiece of the HFA inhalers should be rinsed weekly.

Refer to instructions for each device. If instructions are not available, contact a pharmacist, school nurse or nurse consultant to ensure proper administration of the inhaled medication, and proper care of the device.

http://www.medscape.com/druginfo/patienthandout?cid=med&drugid=144702&drugname=ProAir+HFA+Inhl&monotype=patienthandout

delivery devices encountered for inhaled medications, please contact a pharmacist, your school nurse or nurse consultant

How to Use a Diskus – medication delivered into the lungs by breathing a fine powder

The **dose indicator** on the top of the DISKUS tells you how many doses are left. The dose indicator number will decrease each time you use the DISKUS. After you have used 55 doses from the DISKUS, the numbers 5 to 0 will appear in **red** to warn you that there are only a few doses left. If you are using a "sample" DISKUS, the numbers 5 to 0 will appear in red after 23 doses.

Taking a dose from the DISKUS requires the following 3 simple steps: Open, Click, Inhale.

Procedure

Wash hands
Have child sit upright

1. OPEN
Hold the DISKUS in one hand and put the thumb of your other hand on the **thumbgrip.** Push your thumb away from you as far as it will go until the mouthpiece appears and snaps into position.

Refer to the "Sample Forms" section of this module for sample Delegation Record and Procedure Guidelines for Nebulizers

2. CLICK
Hold the DISKUS in a level, flat position with the mouthpiece toward you. Slide the **lever** away from you as far as it will go until it **clicks**. The DISKUS is now ready to use.

Every time the **lever** is pushed back, a dose is ready to be inhaled. This is shown by a decrease in numbers on the dose counter. **To avoid releasing or wasting doses once the DISKUS is ready:**

- Do not close the DISKUS.
- Do not tilt the DISKUS.
- Do not play with the lever.

Do not move the lever more than once.

Refer to the Sample Forms Section for a Nebulizer Treatment Authorization

3. INHALE
Before inhaling your dose from the DISKUS, breathe out (exhale) fully while, holding the DISKUS level and away from your mouth. **Remember, never breathe out into the DISKUS mouthpiece.**

Put the mouthpiece to your lips. Breathe in quickly and deeply through the DISKUS. Do not breathe in through your nose.
Remove the DISKUS from your mouth. Hold your breath for about 10 seconds, or for as long as is comfortable. Breathe out slowly.

Refer to the Sample Forms Section for Nebulizer Treatment Procedure

The DISKUS delivers your dose of medicine as a very fine powder. Most patients can taste or feel the powder. Do not use another dose from the DISKUS if you do not feel or taste the medicine.
Rinse your mouth with water after breathing-in the medicine. Spit the water out. Do not swallow.

4. CLOSE the DISKUS when you are finished taking a dose so that the DISKUS will be ready for you to take your next dose. Put your thumb on the thumbgrip and slide the thumbgrip back toward you as far as it will go. The DISKUS will click shut. The lever will automatically return to its original position. The DISKUS is now ready for you to take your next scheduled dose, due in about 12 hours. (Repeat the steps 1 to 4)

REMEMBER:

- Never breathe into the DISKUS.
- Never take the DISKUS apart.
- Always ready and use the DISKUS in a level, flat position.
- Do not use the DISKUS with a spacer device.
- After each dose, rinse your mouth with water and spit the water out. Do not swallow.
- Never wash the mouthpiece or any part of the DISKUS. **Keep it dry.**
- Always keep the DISKUS in a dry place.
- Never take an extra dose, even if you did not taste or feel the medicine.

http://www.advair.com/asthma_inhaler_instructions.html

How to Administer a Nebulizer Treatment

This procedure is delegated by a registered nurse to a specific individual (or individuals) for a specific child.

An individualized health care plan or instructions must include 1.) How often the treatment needs to be given. and 2.) Describe specific measurable symptoms to observe. A blanket permission that states "give nebulizer treatment as needed per parent request" is unacceptable.

These two examples provide clear instructions: 1.) Give nebulizer treatment every 4 hours for a period of 5 days. If coughing becomes more frequent or there is wheezing present, contact the parent immediately for follow-up with the health care provider. OR 2.) *Give nebulizer treatment, as needed every 4 hours, for persistent frequent coughing, wheezing or respiratory rate greater than 40. Notify parent when treatment is given.*

The caregiver is not responsible for making "judgments" regarding when and if a treatment should be given.

Important Note: Training for this procedure does NOT constitute "nursing delegation". Ongoing supervision of school/childcare personnel and a communication plan is a necessary part of delegation.

Definition: To nebulize means to convert a liquid into a fine spray. The use of a mechanical nebulizer assists in the improvement of breathing by administering bronchodilators and/or anti-inflammatory medication directly into the lungs.

Refer to the Sample Forms section for a Nebulizer Treatment Log

Equipment needed

- Nebulizer machine (an air compressor)
- Connection tubing
- Nebulizer "cup" with mouth piece or mask
- Medication, normal saline or other pre-measured medication
- Clock or watch with a second hand to count respirations

Procedure

1. Check the written orders from the health care provider.
2. Check for written permission from the child's parent /guardian to administer the medication at school/child care.
   Find out what time the treatment was given by the parent.
3. Observe, count, and document the child's breathing before treatment.
   Normal breathing rate at rest:
   - 30-60 breaths/minute for a newborn
   - 20-40 breaths/minute for an infant < one year
   - 18-30 breaths/minute for a toddler
   - 16-25 breaths/minute for a school age child
4. Wash your hands.
5. Assemble the equipment near the child and a power source.
6. Measure and pour the medicine then add the saline (or other diluent, ordered by health care provider) into the nebulizer cup. Note: some medicines are packaged in a "unit dose"
7. Have the child sit upright in a comfortable position.

Note: *This information on Peak Flow Meters is not included in the student handbook.*

8. Attach the nebulizer tubing to the air compressor and turn it on. A fine mist should be visible.
   Note: If the output from the nebulizer appears decreased or the mist is not visible, unplug the machine. Check the tiny opening in the lower half of the nebulizer cup to see if it is clogged. If necessary, carefully run a clean safety pin through the opening a couple of times and rinse well.
9. Ask the child to place the mouthpiece into his mouth and breathe in and out through his mouth. An infant or toddler may use a mask instead.
   Note: Sometimes a health care provider will recommend a "blow by" technique. This technique is done by placing the mist very close to the child's nose and mouth, usually while they are being still with an activity, e.g. coloring or looking at a book or while they are napping.
10. About every two minutes, have the child take an extra deep breath, hold his breath briefly, and then exhale. Resume normal breathing for a few more minutes before doing again. This allows the medicine to remain in the lungs longer.
11. Observe the child for any adverse reactions such as wheezing (bronchospasm). If the child coughs during the treatment, remove the mouthpiece or mask, and allow the child finish coughing.
12. Continue the procedure until all the medication fluid is nebulized.
13. The treatment is finished when the fine mist is no longer visible and the fluid is gone from the nebulizer cup. This usually takes 8-10 minutes.
14. Turn off the machine. Observe, count, and document the child's respiratory rate (Review Step #3 above for normal breathing rates).
15. Ask child to wash their hands and rinse out their mouth with water.
16. Wash your hands.
17. **DOCUMENT:** Date and time administered, breathing rate before and after the treatment, any observations, e.g., cough, secretions, skin color, activity, etc., and initial on the log.
    Note: Some children cough up mucous after breathing treatments. Observe color and thickness of the mucous. Normal secretions are usually white/clear and thin. Thick and sticky mucous that is yellow or green color may indicate infection. Report this to the parent.
18. After each treatment, rinse the nebulizer cup, mouthpiece or mask under hot running water. Allow the pieces to air –dry on a clean paper towel or cloth. When dry, store in a clean plastic bag that can be closed. A more complete cleaning is needed if 3-4 treatments are given per day. Do not clean or rinse tubing. Store it with the nebulizer cup and mouthpiece.
19. Send the nebulizer machine home with parent/guardian for regular cleaning and maintenance.

Other Inhaled Medication

Nasal Spray - medication delivered into the nose via a spray

Procedure

1. Wash hands
2. Have child sit upright
3. Have tissues handy
4. Occlude one nostril and gently squeeze spray bottle in open nostril

5. Wipe any discharge
6. Repeat based on number of sprays ordered
7. Repeat procedure in other nostril

Peak Flow Meter

The peak flow meter measures how fast the child can blow air out through the airways. It is an objective measure of how the child is managing their asthma and lets the child and supervising adult know how much airway narrowing is present at a given time. There are many different types of peak flow meters, but they all perform the same function.

The Peak Flow Meter Can

- Tell how much airway narrowing is present.
- Give early warning of an asthma episode, sometimes before symptoms develop.
- Signal when medication can prevent asthma from getting worse.
- Measure how well the child's asthma medications are working.
- Help identify asthma as the cause of shortness of breath, chest tightness, coughing, or fatigue during physical activities.
- Help adults share information about the child's asthma.
  Note: The peak flow meter is generally not used for very young children. Measuring respiratory rates in infants and young children is a more objective measure of respiratory function.

Factors to be considered when determining the student's ability to self carry are found in the Colorado Self Carry Guidelines, available in the Appendix Section of this module

Procedure

"Ask" the child to:

- Stand up straight. Make sure the pointer is at "zero" on the meter.
- Clean their mouth of gum, food, etc.
- Take a deep breath; put the mouthpiece past the teeth and close lips around it, making sure the tongue is away from the opening.
- Blow as hard and fast as he can.
- The moveable indicator will move up the scale to give you the "peak flow".
- Repeat 2 more times and write down the highest peak flow of the 3 blows.
  Note: If the peak flow readings start high and decrease, this may be an indication that the airway is beginning to narrow.

If applicable, review the "Contract for Students…" form in the Forms Section of this module.

When is a Peak Flow Meter used?

- Before P.E. or physical activity e.g., recess, field day, etc.
- On or before field trips.
- During asthma episodes. A peak flow measure will help to guide asthma care.
- When there is a question about chest symptoms or asthma control.

What does a Peak Flow reading mean?

The peak flow reading should be compared to the child's "personal best" peak flow value: The child can blow his/her "personal best" when asthma is well controlled. The child's health care provider, the parent/guardian or the school nurse should determine the child's "personal best" peak flow value, while the child is well and symptom free. This personal best value is recorded in the Asthma Health Care Plan and used to make objective asthma management decisions.

Peak Flow Zones

Green Zone- Good Control

- 80-100% of the child's personal best.
- Asthma is under good control.

Yellow Zone- Caution

- 50-80% of the child's personal best.
- Asthma is not under good control. Additional steps need to be taken.

Red Zone- DANGER

- LESS THAN 50% of the child's personal best. Immediate action is needed.
- Give treatment as directed by the child's health care provider. See Asthma Health Care Plan.
- CALL 911 or the emergency medical services in your area. The child should be taken urgently to the emergency room.
- CALL THE PARENT/GUARDIAN.

How are Peak Flow Zones Set?

- Peak flow readings should be tested two times per day; morning is best and can be around medication time, but not after exercise.
- The child blows on the peak flow meter three times; record the best number. Remind the child to blow as hard as possible.
- If the child takes an inhaled bronchodilator, repeat the peak flow about five to ten minutes after the medication. Record this best peak flow value.
- Repeat this for two consecutive weeks. The child's asthma needs to be stable and well controlled during this time.
- A narrow range of peak flow values will be recorded. This information is shared with the child's health care provider for determining the child's personal best value and Green-Yellow-Red zones. These values will allow for better assessment of the child.
- Age, height, race, sex, and asthma history affect peak flow values and as a child grows the personal best is likely to increase.

Self-Carry – Rights and Responsibilities:

According to state law (C.R.S. 05-156) in Colorado, children may be allowed to self carry asthma and anaphylaxis medications in school as well as some group care settings. Self administration in these settings refers to situations in which students carry their medication on their person and administer the medication to themselves. There are orders from their healthcare provider, authorization from their parent, and the administration is done in accordance with school district or program policy. Typically this medication is not handled by school or child care personnel nor stored in the program's medication storage area.

According to Colorado Schoolchildren's Asthma and Anaphylaxis Health Management Act Guidelines a variety of "factors should be assessed *by the school nurse* or nurse consultant in determining when a student should self carry and self-administer life-saving medications." These factors include, but are not limited to:

Student Factors:

- Desire to carry and self administer
- Appropriate age, maturity and/or developmental level
- Ability to use correct technique in administering the medication
- Willingness to comply with school/program rules about the use of the medication while in the setting

Please review the Caring for Children with Asthma Power Point Presentation that is available in the Appendix section of this module

There is also a demonstration DVD from the Colorado Allergy and Asthma Centers P.C. that is available on the

Parent/Guardian Factors:

- Desire for student to self carry and self-administer
- Awareness of program policies and parent responsibilities
- Commitment to ensuring that the child has the medication, medications are refilled when needed, medications are not expired
- Provision of back-up medication for emergencies.

School/Program Factors:

- Availability of trained staff while children are in the program setting
- Availability of trained staff in case of loss or inability to administer medication
- Ability to disseminate information about medication use to all staff who need to know
- Communication system to contact appropriate staff in case of a medical emergency
- Opportunity for school nurse to assess child's status and technique
- Availability of the school nurse to provide oversight and support

Open communication is the key and this communication should include healthcare providers, families, and school personnel especially the school nurse. In addition, a contract with all students who self carry is recommended so that the proper safeguards can be in place.

Qualistar web site for trainers to download. This DVD demonstrates the use of MDIs, Diskus and Spacer and Peak Flow Monitoring

Reference:

Hootman, J., Schwab, N., Gelfman, M.H.B., Gregory, E., and Pohlman, K., (2001). School Nursing Practice: Clinical Performance. In N. Schwab and M Gelfman (Eds.), *Legal issues in school health services*. North Branch, MN: Sunrise River Press.

Steps to Follow During An Asthma Episode

1. Give medication indicated in Asthma Health Care Plan.
2. Encourage child to relax with slow deep breaths.
3. Offer sips of warm water to relax and refocus the child's attention.
4. Contact parent if no improvement is seen in 15-20 minutes.
5. If indicated on health plan, inhaler dose may be repeated if no improvement in a specified time
6. **Seek emergency care or call 911 if the child has any of the following**:
   - No improvement 15-20 minutes after initial treatment with medication and an emergency contact person cannot be reached
   - Difficulty breathing with:
     - Chest and neck "pulling in" with breathing
     - Child is hunched over
     - Child is struggling to breathe
     - Trouble walking or talking
     - Stops playing and can't start activity again due to breathing difficulties
     - Unable to complete a sentence due to breathing difficulties
     - Lips or fingernails turn gray or blue
     - Decreasing or loss of consciousness

Documentation of Student Training and Delegation:

If this training is part of the complete medication administration training

- document competency "Medication Skills Check List" that is part of the Forms section in the main curriculum.

If this training is being offered for individuals not trained in the complete curriculum,

- document training and delegation on the specific care plans for children with asthma
- use the Delegation/Procedure Guidelines form in the Forms section of this module for inhaler and nebulizer training and delegation